ABOUT WHAT AND WHAT ABOUT:
THE DISTINCTION BETWEEN "TOPIC" AND "ISSUE"
IN CONVERSATIONS

by

Junko Mori

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Arts in Communication

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DEDICATION

This thesis is dedicated to Charles Pavitt
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This thesis claims that one of the main objectives of having a conversation is to evaluate the rightness of one's judgment about things (e.g., objects, persons, places, events, plans and abstract ideas). In this thesis, such a judgment about things is called an "issue" and the object of an "issue"; the thing which the judgment is about is called a "topic."

If one of the objectives of having a conversation is, as claimed, to evaluate the rightness of one's judgment ("issue") about things ("topic"), in order to achieve this objective one has to present an "issue" through a conversation. Thus, it is hypothesized in this thesis that a conversation in which an "issue" is either explicitly or implicitly presented will be favored.

An empirical study was conducted to examine the psychological reality of "issue" and "topic," the validity of their proposed definitions, and the legitimacy of the hypothesized claim. In the study, 141 undergraduate college students were given three written transcripts of conversational segments and asked to identify the "topic"
and "issue" of each segment. Then they evaluated conversational satisfaction and difficulty of "topic" and "issue" identification in each segment.

The results suggested that observers of conversations can identify "topics" and "issues" as separate entities. A "topic" was identified as a noun or a noun phrase and an "issue" was identified as a sentence or at least as containing a sentence which is about a "topic." The study also found that conversations in which an "issue" is expressed and recognized are perceived by observers of conversations as more satisfactory and less difficult in terms of "topic" and "issue" identification than those without an "issue."

Participants also showed a strong tendency to look for an "issue" in conversation, by identifying something as an "issue," while reporting difficulty in doing so from conversations which do not involve an "issue."

Further, another finding of this study, that participants could identify an "issue" which was expressed implicitly in a conversation as easily as one expressed explicitly, is evidence of the existence of conversants' ability to make inferences about conversations.
Chapter 1
INTRODUCTION

Overview

Wife : Honey, what do you think?
Husband: About what?
Wife : Oh, about Helen.
Husband: What about her?

Because conversation is one of the most basic forms of human communication, understanding the nature of conversation should help us to understand the nature of human communication. Therefore, it is important to ask very basic questions about the nature of conversation such as why people have conversation, what the function of conversation is, and how people maintain conversation. Each party's remarks in the above dialogue suggest answers to these questions.

In this thesis, as an answer to the question of why people have conversation, it is claimed that there are two main objectives of communication. One is to acquire
information about things (e.g., objects, persons, places, events, plans and abstract ideas), and the other is to evaluate the rightness of one's own judgments about things. One of the main reasons for having conversation is to achieve these objectives.

As a living organism, a human being has to adjust to the environment. In order to make this adjustment, an individual constantly acquires information from the environment through sensory organs and evaluates it, as all other living creatures do. However, the use of highly developed language makes the environment in which human beings live different from the environment of other creatures. As Blumer (1969) stated, human beings live in an environment of symbolic interaction. In this environment, human beings acquire information and evaluate it through symbolic interaction. The use of language plays an important role in three stages of this process.

In the first stage, human beings use language to acquire information. Although some other animals are known to use their language to communicate with each other, the languages of human beings are much more abstract and complex. And these properties enable us to communicate more efficiently about very complex or abstract matters. Thus, information human beings acquire from the environment can be symbolic in nature. For
example, for a human being information such as what is suitable to wear at a wedding party and what is considered rude is as important as what the temperature of water in a swimming pool is.

In the second stage, human beings make an evaluation of information and/or a judgment based on information, such as "I am going to wear a red dress," "He is a rude person," and "The water is warm enough to swim in." The judgments based on symbolic information are valid only in a symbolic environment. For example, whereas the validity of the third judgment depends on physical fact, the validity of the first two judgments depends on whether they are acceptable to the community.

In the third stage, human beings evaluate the rightness of their judgments. Some judgments have to be evaluated through a symbolic interaction. For example, whereas one can evaluate the rightness of the judgment "The water is warm enough to swim in" by actually diving into the water, one evaluates the rightness of the judgments "I am going to wear a red dress at the wedding party" and "He is a rude person" by presenting them to members of the community through a social interaction. Thus, in the latter two situations, in order to evaluate the rightness of one's own judgments about things, one has to communicate with other members of the community.
In this thesis, the third stage, where one's objective is to evaluate the rightness of a judgment, will be particularly focused on. As one of the primary means of social interaction, conversation functions to provide an opportunity to present and evaluate one's own judgment about things.

Thus, it is assumed that, in many situations, when one engages in a conversation, one already has a judgment which one wants to present and evaluate. For example, observing the above dialogue, one could assume, from daily life experience, that when the wife asked the question "What do you think (about Helen)?" she already had her own judgment (opinion) about Helen. And while directly or indirectly presenting her judgment, she is asking her conversation partner's evaluation about her judgment of Helen. What is in question here is not "Helen" but the rightness of the wife's judgment of Helen.

In this thesis, one's judgment about an object proposed in a conversation is called an "issue," while the object that the judgment ("issue") is about is called a "topic." Thus, one of the reasons people have a conversation is to evaluate the rightness of an "issue." So, although it may sound contrary to the commonsense notion that conversation is about a "topic," it is claimed
in this thesis that, in many cases, conversation is about an "issue."

Because having an "issue" in a conversation is a primary reason for having conversation, it is important to study the nature of "issue." The first purpose of this thesis is to develop definitions of "issue" and "topic" and to clarify the distinction between them.

An "issue" is a judgmental statement about an object ("topic"). Because an "issue" is itself a statement and thus takes sentence form, it is not to be found within a sentence. Rather, an "issue" is found within a conversation. An "issue" may not be explicitly stated in a conversation, but in order to achieve the objective of conversation it must first be perceived as a statement by both conversants. And a "topic" is the central focus of an "issue." Thus, a "topic" is a part of an "issue" and is inseparable from an "issue."

To clarify this relationship between "issue" and "topic," it is helpful to compare it with the relationship between "comment" ("rHEME") and "topic" ("theme") in some theories of "topic" that treat these entities as structural components of a sentence (Chomsky, 1965; Hornby, 1971, 1972; Halliday, 1976, 1989). Not only was "topic" ("theme") considered an independent entity, separate from "comment" ("rHEME"), by these authors, but
it also was considered to be dominant to "comment" ("rheme"). Thus, "comment" ("rheme") was defined as the rest of a sentence which follows a "topic" ("theme"). For example, Halliday (1976) defined "rheme" as "non-theme."

In this thesis, "topic" is regarded as subordinate to "issue," although "topic" plays important roles in conversation. (Figure 1.1 illustrates the relationship between "issue" and "topic" and "comment" ("rheme") and "topic" ("theme").)

Because an objective of a conversation is to evaluate an "issue," to examine how an "issue" is presented and processed in a conversation could provide an answer to the question of how people maintain a conversation.

Although the evaluation of an "issue" takes place through a social interaction (a conversation), conversants are not merely reacting to the social environment. Rather, it is assumed in this thesis that human beings are active in conducting communication. When people have a conversation, they are usually neither passive nor reactive, but they know which "issue" they want to present, intentionally seek an opportunity to present an "issue," and consciously extract a "topic" from an "issue."
Figure 1.1 The Relationship between Comment and Topic and the Relationship between Issue and Topic
As mentioned earlier, a conversation does not start with a "topic." Before engaging in a conversation, conversants have "issues" in their minds. Through a conversation, a conversant seeks opportunities to present an "issue."

In order to present an "issue" in a conversation, a "topic" (a focus of an "issue") first has to be presented. A conversant extracts a "topic" from an "issue" and presents it in a conversation. A "topic" does not necessarily have to be presented by a conversant. There can be situations in which a "topic" is brought by a conversation partner or comes from outside the conversation, (for example, both conversants see Helen coming). It is essential that the topic is known to both conversants. Thus, one cannot suddenly start a conversation by saying "Don't you think Helen is a mean person?" unless one believes that one's conversation partner also knows Helen. It is a conversant's responsibility not to present an "issue" before the "topic" is known. In the example dialogue, by not mentioning "Helen" in the initial utterance, the wife failed to achieve this first requirement. Thus, the husband had to ask what the "topic" was, by saying "about what?"
Then, the presented "topic" has to be acknowledged by the conversation partner. For example, when the wife in the above dialogue asked "What do you think (about Helen)?", the husband could have completely ignored this question and replied by saying something totally irrelevant such as "May I have another beer?" In this situation, the wife cannot proceed to present the "issue." She has to either give up presenting the "issue" or try to present the "topic" till the husband acknowledges Helen as a "topic." Once a "topic" is acknowledged, it must become definite, for instance "the book" instead of "a book." Proper names are considered as originally definite (see Li & Thompson, 1976).

After a "topic" is acknowledged, an "issue" will be presented. Although a "topic" can be involved in various "issues," which "issue" is discussed in a conversation is not arbitrary. Thus, in order to discuss a particular "issue," a conversant is required to present to the conversation partner the "issue" that he/she wants to evaluate. In the above dialogue, the wife failed to achieve this second requirement, although she fulfilled the first requirement, that is, to present a "topic," by saying "Oh, about Helen." Thus, the husband had to ask what the "issue" was, by saying "What about her?"
An "issue" can be presented in either a direct or an indirect way. To illustrate different ways of presenting an "issue," let us assume that the "issue" that the wife in the above dialogue wants to present and evaluate is that Helen is a mean person. A very direct way to present an "issue" is to verbally express an "issue" in a conversation. After presenting a "topic," by saying "What do you think about Helen?," the wife can make a statement such as "I think she is a mean person." One of the indirect ways to present an "issue" is to use contextual cues. For example, after presenting the "topic," if the wife listed many unpleasant incidents involving Helen, such as "Helen did not send me a Christmas card," and "Helen ignored me at the party," then the husband can conclude that his wife thinks that Helen is a mean person. Another indirect way to present an "issue" is to use non-verbal cues, such as tone of voice, facial expressions, and gestures. For example, using these non-verbal cues, the wife could have expressed her negative feeling toward Helen when she asked the question "What do you think about Helen?" Although non-verbal cues may not be as accurate as the verbal expression of an "issue," the husband can conclude that his wife thinks that Helen is not nice.
To learn whether or not one's "issue" is acceptable or agreeable to the conversation partner, the "issue" has to be not only presented but also discussed in a conversation. Thus, the presented issue has to be acknowledged as the "issue" of a conversation by the conversation partner. An "issue" may be either explicitly or implicitly presented, but in either case, an acknowledged "issue" must be in sentence form and must have a "topic" in it. Because a "topic" is the central focus of an "issue," it can be assumed that a "topic" is a left-most noun phrase or that it coincides with a grammatical subject of an "issue" statement.

Even when a conversant presents an "issue," it may not be discussed in a conversation. For example, when the wife presented the "issue" "Helen is a mean person" by asking the question "What do you think about Helen?", the husband may decline to acknowledge the "issue" by saying "Nothing." In this case, because the husband refused to discuss the "issue," the wife has no way to know whether or not her judgment about Helen agreed with her husband's. The wife has to either present the "issue" again or give up discussing the "issue" for the moment and wait for an opportunity to present it later on in the conversation.

Through discussion, given its acknowledgment, a conversant's "issue" will receive approval or disapproval.
In the first case, the rightness of the presented "issue" is confirmed by a conversation partner as being fully agreed on. If the conversation partner approved (agreed on) an "issue," a conversant can keep the original "issue" as a correct judgment about a "topic," and will move on to present and evaluate the next "issue." In the second case, the rightness of the presented "issue" is challenged by a conversation partner; that is a conversation partner may partially or fully disagree with the "issue." This disagreement is a discrepancy between a conversant's judgment about a "topic" and a conversation partner's judgment about a "topic."

There are two resolutions of this discrepancy. The first resolution is that, through a conversation, a conversant abandons an original judgment about a "topic." Therefore, a conversant changes his/her "issue" by either fully accepting a conversation partner's "issue" or by compromising with a partner to form a new, modified "issue." The second resolution is that, regardless of what a conversation partner's judgment about a "topic" is, a conversant may determine to keep his/her own judgment. In this case, the rightness of the "issue" is still not confirmed; thus, a conversant has to try to evaluate it in another conversation, probably with another person.
Finally, when an "issue" is confirmed, or any disagreement on "issues" is resolved, the conversants close that "issue" and move on to the next one. This process is illustrated in Figure 1.2.

Whether a conversant compromises with a conversation partner or keeps his/her own "issue" seems to be affected by relational factors such as the importance of an "issue" and the relationship between two conversants. However, these factors will not be discussed in this thesis. Rather it is assumed that the process in which a conversant presents and evaluates an "issue" is independent of these relational factors.
Figure 1.2 Issue and Topic Flow
Proposal of Hypotheses

To examine the psychological reality of the concepts of "issue" and "topic," and the validity of the proposed definitions of these concepts, the following hypotheses will be tested through experiment:

Hypothesis 1: When participants are asked to identify a "topic" and an "issue" in a given conversation, they are able to provide two different types of response.

Hypothesis 2: When participants are asked to identify a "topic" in a given conversation, they will provide a definite noun or a noun phrase as the response.

Hypothesis 3: Even though an "issue" is not stated explicitly in a given conversation, as long as there is an "issue," participants can identify it.

Hypothesis 4: If a given conversation does not have an "issue," participants can identify the conversation as a "non-issue" one.

Hypothesis 5: When participants are asked to identify an "issue" in a given conversation, as long as there is one, either explicit or implicit, participants will provide a sentence as the response.

Hypothesis 6: The sentence provided by participants as an "issue" will have a "topic" as a grammatical subject.

Hypothesis 7: The response provided as an "issue" by participants will be an evaluational statement.

Furthermore, it is assumed that a conversant, having an objective for engaging in a conversation, is able to evaluate a conversation in terms of the accomplishment of the objective. Because one of the main objectives of a conversation is to evaluate an "issue," a
conversation in which an "issue" is presented and acknowledged will be perceived as more favorable than one without an "issue."

The second purpose of this thesis is to discover through empirical tests whether conversation with an "issue" is actually favored. To measure participants' preference, conversational satisfaction is going to be used. Thus, the following prediction is made:

Hypothesis 8: Participants will evaluate given conversations which include an "issue" as more satisfactory than ones which do not include an "issue."

Although the satisfaction derived from a conversation may involve other factors, such as the importance of an "issue," the outcome of a conversation, and the relationship between the conversants, the satisfaction considered in this thesis is limited strictly to whether or not an "issue" is presented and discussed in a conversation. It is assumed that this satisfaction is independent of those other factors.

Justification of Study

The first goal of this study is to propose distinctive definitions of two concepts, "topic" and "issue," from the viewpoint of communication study.
There may not be any doubt that conversation is one of the most basic forms of human communication, and most people, including scholars of communication study, may agree that conversations involve an entity, which is called "topic." However, unfortunately, the concept of "topic" itself is not precisely defined in the domain of communication study. Moreover, in many cases, while using the term "topic," scholars have actually dealt with two different concepts, "topic" and "issue."

While concepts such as "topic" and "issue" have been used without being distinctively defined in the domain of communication study, several attempts have been made to more precisely define those concepts in such disciplines as linguistics, psycholinguistics, and cognitive science. However, because of the different goals these disciplines have, these attempts quite naturally lack a communication orientation in their treatment of these concepts. Rather, these concepts are seen merely as building blocks of language or as units of analyzing cognition and conversation comprehension.

However, these entities, "topic" and "issue," although they originate in cognition and are expressed through language, exist in communication where not one but at least two persons are involved. Therefore, to define
these entities and to study them in the scope of communication are important.

As seen in this chapter, this study is intended to more precisely define the two entities, "topic" and "issue" in the scope of communication. "Topic" and "issue" are seen as entities which are developed and maintained through conversation by conversants as a joint activity.

Furthermore, as repeatedly mentioned in this chapter, it is claimed in this study that "topic" and "issue" are viewed not only as existing in communication but as interrelating with the very reason for having a conversation, i.e., communication. This claim leads to the second goal of this study, which is to find the relationship between conversational satisfaction and the existence of "topic" and especially "issue" in a conversation. This goal leads to one of the practical implications of this study. If, as predicted, having an explicit or implicit "issue" in a conversation gives conversants or observers greater satisfaction than not having one, the presence or absence of the "issue" can be seen as one of the factors of conversational satisfaction. Thus, in turn, the presence of an "issue" can be used as one of the indices of conversational satisfaction.
Also, if a conversation which involves an "issue" is favored (considered more satisfactory) than one which does not involve an "issue," the presence or absence of an "issue" can be used by a conversant (or an observer) as a criterion to evaluate a conversation, for instance, in judging the acceptability of a conversation. Moreover, if one who engages in such a conversation can be considered a better conversant (communicator), the presence or absence of "issue" in a conversation can be used as one of the criteria of evaluating a conversant (communicator), for instance, in judging the conversant's competence.

Another possible implication stemming from this study is that conversants or observers of conversation can make inferences about the "issue" of a conversation. The inferential nature of communication is reported in several places and seen as one of the basic assumptions of communication study (Haslett, 1987). Observing the use of language in communication, it must be realized that what is said is not always what is meant, as Grice (1975) pointed out. Inferences can be seen as the process by which a linkage is made between what is literally said and what is meant. In other words, inferences are the very process by which one can see, beyond the words literally used, what is going on in a conversation. As suggested by Haslett (personal communication, October 21, 1992), with
the ability to make inferences, one can understand what is being talked about ("topic") and what is being said about the "topic" ("issue") in a conversation. Therefore, inferences are fundamental to the ability of humans to interpret what is going on in the conversation, that is, the ability to make sense of the communication process.

Luszcz and Bacharach (1983), also, made a similar claim that the ability to make inferences is one of the fundamental abilities which is necessary in human communication. Through their observations, Luszcz and Bacharach (1983) found that small children lack such ability, and they suggested that one acquires such ability in the process of development of communication skill.

However, these previous studies did not offer empirical evidence for the existence of conversants' ability to make inferences. Thus, although the inferential nature of communication is a widely accepted idea, it still remains as scholars' speculation without empirical evidence. By using judgments made by observers of conversation, this study may be able to give empirical evidence of the existence of the ability of making inference.

That is, if, as predicted in this study, one can identify an "issue" regardless of whether it is explicitly or implicitly stated in a conversation, it is evidence
that people can and do make inferences about what is communicated.
Chapter 2  
LITERATURE REVIEW

Previous Studies of "Topic"

The study of conversation has attracted not only communication scholars but also researchers in such varied disciplines as linguistics, cognitive science, psychology, and sociology. This variety in disciplines shows that the study of conversation involves various aspects and focuses. Despite the different aspects and focuses, however, many of these researchers are concerned with the notion of "topic," although this notion is not always referred to as "topic."

Among scholars of those disciplines, linguists and cognitive scientists tend to focus on the nature of "topic," whereas the scholars who study conversation from sociological and interpersonal points of view tend to make little or no attempt to define the notion of "topic."
Linguistic and Psycholinguistic Approaches

Linguistics has experienced an expansion of the unit of analysis in the study of conversation. Starting from the study of sound systems of languages (phonology), linguists have widened their interest to combinations of sounds (morphology), then to the comparison of words, then the structure of single sentences, and finally multiple sentences (discourse; see Freedle, 1977; Van Dijk, 1985.)

1950s and 1960s Studies of "Topic". For this historical reason, the notion of "topic" was first studied within sentences, particularly in relation to the notion of "subject." When, during the 1950s and 1960s, single sentences were the focus of analysis, it was primarily the characteristics of "subject" and the relationship between "subject" and "predicator" that were examined. In this period, the notion of "subject" was regarded strictly as a grammatical or syntactic entity, and the psychological properties of language, such as the meaning of sentences and speakers' intentions, were rarely considered. For example, Fries (1952) stated that "such terms as 'subject,' 'indirect object,' 'direct object' have no relation to the actual facts of a situation in the real world. As grammatical terms they are simply names for particular formal structures within an utterance" (p.
Therefore, according to Fries (1952), in a given situation involving a man as a giver, a boy as a receiver, an action of giving money, and a time frame of "yesterday," any of these components can be the "subject" of a sentence. In other words, the following five sentences are possible and it is difficult to predict which one of them will occur.

- The man gave the boy the money yesterday.
- The boy was given the money by the man yesterday.
- The money was given the boy by the man yesterday.
- The giving of the money to the boy by the man occurred yesterday.
- Yesterday was the time of the giving of the money to the boy by the man. (From Fries, 1952, p. 176.)

However, some of these sentences are obviously artificial. Furthermore, in a real situation a speaker would have in mind which component must be focused on and articulate one of these sentences accordingly.

Logistical View of "Subject". Chomsky (1965) also put an emphasis on the structure of sentences (syntax) in the study of language. But in contrast to the approach which focuses only on surface structures of sentences, he argued that there are two types of structure in a
sentence: surface structure and deep structure. According to Chomsky (1965), surface structure is related to "grammatical subject" and "grammatical predicate" and deep structure is related to "logical subject" and "logical predicate." The notion of "logical subject" and "logical predicate" had been examined by logicians. For example, Panfilov (1968) defined "logical subject" as "the notion of the object of the thought" (p. 12) and "logical predicate" as "the notion of the characteristic or the characteristics which are ascribed to it [i.e., the logical subject] in the given act of thinking" (p. 12). Hornby (1972) also mentioned the distinction between logical subject and logical predicate by stating that:

The logical distinction is based on the semantic relations of case, in which the logical subject of a sentence with an active verb is equated with the agent of the action, with the rest of the sentence constituting the logical predicate. In sentences in which the main verb is stative rather than active, then it is the bearer of the state that constitutes the logical subject. (p. 633)

In the example sentence given by Chomsky (1965): "John was persuaded by Bill to leave" (p. 70), while "John" is the grammatical subject, "Bill" is the logical subject.

Psychological View of "Subject". In addition to these two types of subject, scholars who study language
from a psychological viewpoint consider a third type of subject, "psychological subject." Although Chomsky (1965) argued that notions such as "psychological subject" and "psychological predicate" are beyond the scope of linguistics, some scholars have nevertheless focused on these notions (Hornby, Hass, & Feldman, 1970; Hornby, 1971, 1972). Among various ways to describe these notions, Hornby et al. (1970) interpreted the notion of psychological subject as a "part of the sentence which indicates what is being talked about" (p. 182) and the notion of "psychological predicate" as "what is being said about it" (p. 182), i.e., about the psychological subject.

To illustrate these definitions of the three types of subject, Chafe's (1976) examples are helpful.

Betty peeled the onions.

The onions were peeled by Betty.

The onions, Betty peeled.

In the first sentence, "Betty" is simultaneously the grammatical, the logical and the psychological subject. In the second sentence, "Betty" is still the logical subject but the grammatical subject and the psychological subject are now "the onions." In the third sentence, "Betty" is the logical and the grammatical subject whereas "the onions" is the psychological subject. As shown, these three types of subject are viewed as being
independent of each other, that is, they may coincide but they do not necessarily do so. However, Hornby (1972) claimed that in spoken sentences, unless it is marked by intonation or stress, the psychological subject coincides with the grammatical subject.

"Subject" and "Topic". Among these three types of subject, logical subject and psychological subject were sometimes regarded as or associated with the notion of "topic" (Chomsky, 1965; Hornby et al., 1970; Hornby, 1971, 1972). For example, Hornby et al. (1970) stated that their interpretation of the notion of "psychological subject" is referred to as a "topic" while the rest of the sentence is referred to as a "comment." Hornby (1972) defined "topic" and "comment" as:

The topic (psychological subject) is that part of the utterance which refers to the fact or facts that may be taken for granted and thus does not greatly contribute to the information provided by the sentence (utterance). The other part, the comment (psychological predicate), contains the actual new information to be conveyed by the sentence and thus increases the knowledge of the listener or reader. (p. 632)

While Hornby considered "topic" as a type of subject, namely psychological subject, Chomsky (1965) regarded "topic" and "subject" as different entities, respectively a noun phrase and a noun. He suggested that
we might define the Topic--of the Sentence as the leftmost NP [noun phrase] immediately dominated by S [sentence] in the surface structure, and the Comment--of the Sentence as the rest of the string. (Chomsky, 1965, p. 221)

Halliday's Notion of "Theme". Whereas Hornby and Chomsky considered the sentence as the minimal unit of analysis of the notion of "topic," Halliday (1976, 1989a) considered "clause" as the unit to analyze English language in regard to such notions as "topic," "theme," and "rHEME." According to Halliday (1989a), the clause is "the grammatical unit in which semantic constructs of different kinds are brought together and integrated into a whole" (p. 66). A sentence consists of clauses and is called a "clause complex." However, Halliday (1989a) considered a "simple sentence" as a sentence consisting of one clause. Therefore, his theories about "clause" are applicable to simple sentences as well.

Among the various concepts used by Halliday (1976, 1989a) in his analysis of "clause," the concept of "theme" seems to be the closest to what others call "topic." According to Halliday (1976), "theme" is "what I am talking about" from a speaker's viewpoint in a dialogue. And "the element selected by the speaker as theme is assigned first position in the sequence" (Halliday, 1976, p. 179). The process in which a speaker selects the
element and organizes the message into theme and non-theme (rheme) is called "thematization."

In contrast to Hornby et al. (1970; Hornby, 1971, 1972) and Chomsky (1965), all of whom consider "topic" strictly as a noun or at most as a noun phrase, Halliday (1976) claims that by definition a Wh-element in a Wh-interrogative and the finite element of the verbal group in a yes/no interrogative (e.g., "Do" in "Do you like cats?") can be a "theme," as well as the leftmost noun in a declarative clause. However, in spite of these differences, the approaches of Chomsky, Hornby, and Halliday are alike in the sense that all are highly sentence-oriented. These authors approach the notion of "topic" ("theme" in Halliday's terminology) at the sentence level (although Halliday uses the term "clause").

This approach leads to another common assumption about topic (theme). That is to say, Chomsky (1965), Hornby et al. (1970; Hornby, 1971, 1972), and Halliday (1976, 1989a) shared the assumption that all sentences (or clauses) have a topic (theme) in them. In contrast to this view, it is claimed in this thesis that a sentence does not necessarily have a "topic" in it, and that a "topic" emerges as the discourse level.
Linguistic Analysis of "Topic" and "Subject". In recent years, the unit of analysis for many linguists has changed from the small (e.g., phoneme) to the large (e.g., multiple sentences). Along with this shift, the notion of "topic" has come to be associated more with a discourse than with a single sentence. Today many scholars apply discourse-oriented approaches in order to examine the nature of "topic." For example, Li (1976) stated that "unlike the notion of subject, the notion of topic is discourse oriented" (p. x).

Through the comparison of the structures of various languages, such as English (Indo-European), Indonesian, Chinese, Lahu (Lolo-Burmese), Japanese, Korean, and Tagalog, Li and Thompson (1976) concluded that subject-predicate construction and topic-comment construction are different. Li and Thompson (1976) also claimed that languages can be classified into subject-prominent languages, whose primary construction is the subject-predicate construction, and topic-prominent languages, whose primary construction is the topic-comment construction.

To illustrate these two constructions, Li and Thompson (1976, p. 459) presented two English sentences.

John hit Mary.

As for education, John prefers Bertrand Russell's
The first sentence is an example of the subject-predicate construction, where "John" is the subject and "hit Mary" is the predicate. The second sentence is an example of the topic-comment construction, where "As for education" is the topic and the rest of sentence, "John prefers Bertrand Russell's ideas" is the comment. As classified by Li and Thompson (1976), English is a subject-prominent language; thus the subject-predicate construction ("John hit Mary.") occurs more frequently than the topic-comment construction.

To clarify the distinction between subject and topic, Li (1976) posed two questions: "How can 'subject' and 'topic' be characterized on a language independent basis?" and "What are the roles of 'subject' and 'topic' in the structure of language?" (p. x). The second question clearly shows that Li (1976) regarded the notion of "subject" and "topic" not in the context of the structure of the sentence but in the context of the structure of language. In an attempt to answer these questions, Li and Thompson (1976) listed several characteristics of "topic" that contrast with the corresponding characteristics of "subject."

First, the topic must be definite. Whereas a subject can be an unspecified noun, such as girls, a book,
or furniture, the topic must be specified. A specified noun is usually indicated by the definite article, "the." Proper nouns and generic nouns (e.g., "tigers" in the sentence "Tigers are dangerous animals.") are considered to be definite nouns. The use of a definite noun expresses to the conversation partner that the conversant assumes that the conversation partner is able to identify, among all possible referents, the particular referent that is in the conversant's mind (Chafe, 1976).

In this thesis it is also claimed that the topic is a definite noun. More precisely, this thesis argues that it is the conversant's responsibility to present a "topic" to a conversation partner prior to presenting the "issue," whose main concern is the "topic." In her analysis of American Sign Language, Friedman (1976) stated that "I would define topic as that or those nominals which are established first --- thus creating scene --- and as such become definite" (p. 142). Being presented in a conversation prior to the "issue" and acknowledged by a conversation partner, the "topic" must become definite.

The second of Li and Thompson's (1976) characteristics of topic is that "the functional role of the topic is constant across sentences" (p. 463). Examining languages in which the topic-comment construction is more prominent than the subject-predicate
construction, Chafe (1976) suggested that the function of the topic is to establish "a spatial, temporal, or personal frame of domain for an assertion which follows" (p. 55). Chafe (1976) argued that topics are not "what the sentence is about," but "the frame within which the sentence holds" (p. 51). From this argument Li and Thompson (1976) concluded that this function of the topic "is related to the structure of the discourse in which the sentence is found" (p. 464), whereas the function of the subject is related to the structure of the sentence.

Even though this thesis also claims that the function of "topic" is related to a discourse and not merely to a sentence, Li and Thompson's (1976) reasoning is questionable for two reasons. First, because their aim was to compare the characteristics of subject and the characteristics of topic, their analysis was based on single sentences. Although Li and Thompson (1976) claimed that the function of topic is related to a discourse, not a sentence, their method still relied on structure analysis of sentences. Thus, in Li and Thompson's (1976) analysis, there was no example which shows that a single topic functions throughout a discourse. Second, although Li and Thompson's (1976) conclusion was based on Chafe's (1976) argument, Chafe's argument merely suggested that the function of topic is over a whole sentence. Chafe's
(1976) argument, that the function of topic is to specify the frame within which the sentence holds, seems to be intact. For example, in the following three sentences, the function of the topic is constant and independent of the predicates.

As for education, John prefers Bertrand Russell's idea.
As for education, Russell's idea was preferred by John.
As for education, England is superior to the United States.

However, in order to extend the application of this function from a whole sentence to a discourse, further explanation is necessary.

The third characteristic of the topic is that it takes the initial position in a sentence. After examining various languages whose sentence structures are mainly of the topic-comment construction, Li and Thompson (1976) reported that, in all the languages they examined, the topic takes the sentence-initial position. This finding agrees with the theories of topic (theme) of Chomsky (1965) who defined "Topic-of the Sentence as the leftmost NP" (p. 221) and Halliday (1967) who claimed that "the element selected by the speaker as theme is assigned first position in the sequence" (p. 179). The psychological
subject, which Hornby (1972) considered as a synonym of "topic," is also described as taking an initial position in a sentence (see Chafe's (1976) examples of the three types of subject mentioned earlier).

Fourth, the topic is more independent of the comment than the subject is of the predicator. The topic need not have a selectional relation with any verb in a sentence. As Crystal (1980) wrote, the linguists of generative grammar have argued that there are selectional features which "specify the restrictions on the permitted combination of lexical items within a given grammatical context" (p. 314). For example, the verb "give," used in the active voice, requires a subject, an indirect object, and a direct object. Usually the subject and the indirect object are persons and the direct object is a thing or things. Moreover, as a subject, a noun must be in the nominative case and as an indirect object, a noun must be in the objective case. Therefore, in a situation where a speaker, a third-person male, and money are involved in an action of giving, usually one of the two persons is the subject (nominative case), the other person is the indirect object (objective case), and money is the direct object; thus:

I gave him money.

He gave me money.
Li and Thompson (1976) argued that whereas selectional restriction exists between a predicator and a subject, "topic" is not restrained by any verb in a sentence. The last three characteristics of "topic" are derived from this independence of "topic."

Fifth, the topic is not determined by the verb. As shown above, it is possible to predict which noun will be the subject of the given verb. One of the clearest situations is when the predicator of a sentence, the verb, is "am," which strictly determines a subject, "I." Having no selectional relation with the predicator, the topic is not determined by the verb.

Sixth, the topic need not agree with the predicate. In English, in addition to the above selectional relations, a subject and a verb have to agree with each other in number. But the topic need not agree with any verb in a sentence.

Seventh, the topic does not play a prominent role in such processes as reflexivization, passivization, verb serialization, and imperativization. (See Keenan (1976) for a detailed discussion of these terms.) To illustrate this characteristic of topic, it is helpful to compare the role of subject and the role of topic in the process of changing a sentence from the active voice to the passive voice.
As for education, John prefers Bertrand Russell's idea.

As for education, Bertrand Russell's idea is preferred by John.

While the grammatical subject of the sentence changes from "John" to "Bertrand Russell's idea," the topic of the sentence remains the same. The role of the topic in the sentence also remains the same. Furthermore, the topic does not play any role in changing the sentence from the active voice to the passive voice.

Although Li and Thompson's (1976) characterization of topic succeeded in making a precise distinction between the notion of topic and the notion of subject, their method of analysis has a limitation. As Li (1976) noted, the characterization of topic "is not absolute, in that topics are described in contrast to subjects rather than independently" (p. x). While claiming that the notion of topic relates to discourse and is different from the notion of subject, which relates to sentences, Li and Thompson's (1976) study was, as mentioned earlier, based on the structure analysis of sentences. Because topic is to be understood at the discourse level, a structural analysis of sentences fails to show some of the characteristics of topics. On the one hand, even in topic-prominent languages, not all sentences necessarily
have a topic in them. For example, in Japanese, one of the topic-prominent languages, many sentences have neither a topic nor a subject. A topic and/or a subject can be presented in the preceding discourse. On the other hand, the fact that subject-prominent languages, such as English, do not have a grammatical device (e.g., particles, prefixes, or suffixes) to mark the topic in the sentence does not mean that these languages can not mark a topic. A topic can be marked by other linguistic devices, such as rising intonation on the topic or by a question or a phrase such as, "Do you remember Helen?" and "Talking about education."

**Discourse Analysis.** If the topic is a linguistic phenomenon which emerges at the discourse level instead of at the sentence level, it must be studied at the discourse level. During the last two decades, a number of scholars from various disciplines have turned to the study of language at the discourse level, so called "discourse analysis." The domain of discourse analysis is so wide (Van Dijk, 1985; Freedle, 1977) that it is not easy to determine what discourse analysis is, if such an attempt is meaningful. However, the current use of the term "discourse analysis" can be traced back to Harris's (1952) article "Discourse Analysis."
Among the various implications of this relatively new approach, the most fundamental one for linguistics is that it extends the unit of analysis from a sentence to a discourse. Harris (1952) stated that:

One can approach discourse analysis from two types of problem, which turn out to be related. The first is the problem of continuing descriptive linguistics beyond the limits of a single sentence at a time. The other is the question of correlating 'culture' and language (i.e. non-linguistic and linguistic behavior). The first problem arises because descriptive linguistics generally stops at sentence boundaries. (p. 1)

Discourse analysis allows scholars to study linguistic phenomena which occur above the single-sentence level, such as pronouns and other cohesion markers, presupposition, topic and comment, the overall structure of discourse, and other typical features of texts which are understood as sequences of sentences (Van Dijk, 1985). Therefore, this approach enables one to study the notion of "topic" independently from the structure of sentences.

Moreover, some scholars claim that not only does a topic emerge at the discourse level, but also that a topic plays an important role in structuring a discourse (Hurtig, 1972; Van Dijk, 1977, 1981; Van Dijk & Kintsch, 1977; Kintsch & Van Dijk, 1978). As sentences are structured in a certain way and can be analyzed by using such notions as topic, comment, theme, rheme, subject, object, and predicator, discourses also are thought by
these scholars to be structured. Hurtig (1972) stated that "a discourse appears to have topical or logical structure. Successive utterances in a discourse appear to be linked on the basis of such a topical or logical structure" (p. 90).

According to Hurtig (1972), the notion of topic as one of the constituents of discourse is different from the notion of topic as a constituent of a sentence. The former notion of topic was defined to "consist of one or more related propositions" (Hurtig, 1972, p. 95). Van Dijk (1977, 1981) also differentiated between these two notions of topic. He claimed that "topic of discourse," which he also calls "discourse topic," "text topic," or "theme," is different from "topic of sentence." The discourse topic is considered to function in the discourse in a way similar to the way that the topic of a sentence functions in the sentence. According to Kintsch and Van Dijk (1978), propositions, to be a coherent structured unit, "must be connected relative to what is intuitively called a topic of discourse" (pp. 365-366). Discourse topic was defined by Van Dijk (1977) as "what discourse or part of it 'is about!'" (p. 6) and as "a proposition entailed by the joint set of propositions expressed by the sequence" (p. 136). Thus, by definition, a discourse topic is not a noun or noun phrase but a sentence. To
illustrate his definition of the discourse topic, Van Dijk (1981) used the following story:

Eva awoke at five o'clock that morning. Today she had to start with her new job in Prague. She hurriedly took a shower and had some breakfast. The train would leave at 6:15 and she did not want to come late the first day. She was too nervous to read the newspaper in the train. Just before eight the train finally arrived in Prague. The office where she had found the job was only a five minutes walk from the station(...). (p. 178)

Van Dijk (1981) claimed that the discourse topic of this story (discourse) is not "a girl (Eva)" but "Eva took the train to Prague and started her new job" (p. 187).

According to Van Dijk (1981), this sentence presents "the most important fact(s) of the story" (p. 187) rather than simply the entire set of available information, such as the fact that Eva took a shower or the distance between the station and her new office.

Keenan and Schieffelin (1976), also, defined the notion of discourse topic as a proposition. While Van Dijk (1977, 1981) defined the discourse topic as a proposition of the most important fact(s) of the discourse, Keenan and Schieffelin defined the discourse topic as "a proposition (or set of propositions) expressing a concern (or set of concerns) the speaker is addressing" (p. 343); thus, a topic (discourse topic) is not a simple noun phrase. It was also claimed by Keenan and Schieffelin that "each declarative or interrogative
utterance in a discourse has a specific discourse topic" (p. 343). Keenan and Schieffelin (1976) gave as an example the following conversation between a child (about 20 months old) and its mother, who is trying to put too large a diaper on a doll:

Mother: Well we can't hold it on like that. What we need? Hm. What do we need for the diaper?

Allison: Pin. (p. 339)

The authors claimed that the discourse topic is "We do need something for the diaper" (p. 344) rather than "What do we need for the diaper?".

Even though both Van Dijk (1977, 1981) and Keenan and Schieffelin (1976) considered a discourse topic as a proposition, their claims about what is communicated in the discourse are different. According to Van Dijk, what is expressed in a discourse is a proposition of facts. In contrast, Keenan and Schieffelin claimed that what is expressed in a discourse is a speaker's concern. Because one of the two main objectives of communication is to acquire information, it is reasonable to assume that some discourses are intended to provide information about a fact or facts. However, it seems that, in many cases, a conversation is held in order to achieve the other main objective of communication, that is, to evaluate the rightness of one's own judgment about things. In these
cases, what is communicated will be about one's concerns (opinions) rather than about a fact or facts. For example, after observing interactions within five mother-child dyads, Foster (1986) reported that very young children (less than 10 months old) tend to communicate with their mothers almost exclusively about themselves. Foster reasoned that because children of this age-group are mainly concerned about themselves, they mostly communicate about themselves. Thus, Keenan and Schieffelin's definition of discourse topic better reflects the reality of conversation than Van Dijk's definition, on the basis that one communicates with others about one's concerns rather than about facts.

This difference between Van Dijk (1977, 1981) and Keenan and Schieffelin (1976) probably originates in the fact that Van Dijk's analysis was based mostly on written texts, whereas Keenan and Schieffelin analyzed verbal and nonverbal interactions between children and their mothers. As Keenan and Schieffelin (1976) stated, conversations are used primarily for expressing one's concerns about things, whereas written texts are used more for acquiring information about facts.

Although discourse analysis led scholars to realize that the notion of topic must be analyzed at the discourse level, there are problems in considering the
notion of discourse topic as being equivalent to "topic" as defined in this thesis. First, it is not clear whether or not there is a need for two different notions of topic, one for sentence-level analysis and the other for discourse-level analysis. In discourse-analysis approaches, as a result of having two notions of topic, the function of a sentence topic in a discourse seems to be neglected.

As Li and Thompson (1976) mentioned, the function of topic (sentence topic) is related to a discourse. Although making such distinctions between the notion of sentence topic and the notion of discourse topic, Van Dijk (1981) and Keenan and Schieffelin (1976) indicated that a sentence topic has a function in discourse.

For example, according to Van Dijk (1981), the relationship between a discourse topic and a sentence topic is that:

A discourse topic may influence the choice or the expression of sentence topics, such that a sentence may have a topical phrase (e.g. a definite noun phrase) which however is not co-referential with an explicit or implicit previous phrase of the preceding sentences, but co-referential with a phrase of a macro-proposition, defining the discourse topic of the previous passage, to the passage as a whole. (p. 192)

A claim similar to Van Dijk's (1981) was made by Keenan and Schieffelin (1976), who stated that "our treatment of topic as a discourse notion should be considered as
distinct from other descriptions of topic in the linguistic literature" (p. 380). The topic (sentence topic) is defined as a left-dislocated noun phrase, such as "as for education" in the sentence "As for education, John prefers Bertrand Russell's idea" or "the onion" in the sentence "The onion, Betty peeled." Keenan and Schieffelin (1976) claimed that the functions of a sentence topic (a left-dislocated noun phrase) are to retrieve or reintroduce propositions or referents within a prior proposition and to introduce novel referents and propositions. The term "referent" refers to the objects, persons, or ideas included in the discourse topic, particularly the ones critical to the discourse topic. This notion of "referent" is almost identical to the notion of "topic," i.e., sentence topic.

Both claims implied that a sentence topic is a part of discourse topic and functions as a reference to a discourse topic. Thus, it is also implied that a sentence topic emerges whenever a discourse topic emerges. Despite the term "topic of sentence," a sentence topic has a function at the discourse level. For example, the function of a sentence topic in Keenan and Schieffelin's (1976) account can be rewritten using the terms "a sentence topic" and "a discourse topic" as: the functions of a left-dislocated noun phrase (a sentence topic) are to
retrieve or reintroduce discourse topics or sentence topics within a prior discourse topic and to introduce a novel sentence topic and discourse topic.

However, while implying that a sentence topic functions at the discourse level, what Van Dijk (1981) and Keenan and Schieffelin (1976) explicitly claimed was that the so-called discourse topic, and not the so-called sentence topic, is the topic of discourse. Furthermore, instead of treating the notions of sentence topic and discourse topic in an integrated way, scholars of discourse analysis have disregarded sentence topic in their theories. For instance, Kintsch and Van Dijk (1978) stated that they excluded grammar, one of the most important components of text comprehension, from their model:

The model will be concerned only with semantic structures. A full grammar, including a parser, which is necessary both for the interpretation of input sentences and for the production of output sentences, will not be included. (p. 364)

This neglect of grammatical entities seems to be one of the weaknesses of Van Dijk and Kintsch's (1977, 1983; Kintsch & Van Dijk, 1978) theory, which was criticized for its lack of precision (see Haslett, 1986).

Contrary to this view, in this thesis it is claimed that the so-called topic of a sentence is the topic of a discourse within which the sentence exists.
However, the existence of such an entity as the so-called discourse topic can not be denied. Rather, it seems that the problem lies in the terminology. If the so-called topic of a sentence and the so-called topic of a discourse coexist at the discourse level and have a referential relationship, to term both "topic" is confusing. For example, in the field of children's language development, using the same term "topic," some scholars (for example, Luszcz and Bacharach, 1983) dealt with the notion of so-called sentence topic and others (for example, Foster, 1983, 1986) dealt with the notion of so-called discourse topic.

Thus, it needs to be examined whether the notion of discourse topic should be called topic. Because "topic" is defined in this thesis as a noun or a noun phrase, a discourse topic, being a proposition (and therefore a sentence), is not considered to be a topic. Although this propositional entity is called a topic in discourse analysis, the notion of discourse topic is related rather to the notion of "issue" in this thesis. In this thesis an "issue" is defined as a judgmental statement which is explicitly or implicitly presented and discussed in a conversation (discourse) and a "topic" is defined as a center focus of the "issue" which is explicitly presented in the conversation. Thus, an
"issue" is propositional in nature. Specifically, "issues" are seen as propositions consisting of judgments whose rightness a conversant needs to confirm in a social context.

In this sense, because they are not judgmental, the actual discourse topics given as examples by Van Dijk (1981) and Keenan and Schieffelin (1976) are not issues either. For example, in Van Dijk's (1981) story there is no evaluational statement, as the story just gives information to the hearer. Almost all of the information given in the story are simple facts. If this story started or ended with a judgmental statement such as "Eva had a very busy morning," then this statement could be an "issue," because the rightness of this judgment is in question and thus needs to be discussed.

**Summary.** In summary, in linguistics the notion of topic had traditionally been studied at the sentence level in relation to the notion of subject, until scholars who conduct so-called discourse analysis emphasized the importance of the analysis of topic at the discourse level. However, what is called topic in these two approaches is not the same. The so-called discourse topic is a totally different notion from the notion of topic in the traditional linguistic sense. As a result, the study
of topic at the discourse level is still neglected. Because both notions of topic exist at the discourse level, both have to be studied at the discourse level and their relationship must be clarified. While calling these two notions of topic respectively "topic" and "issue," this thesis attempts to examine their natures and relationship.

**Cognitive Science Approaches**

Reflecting the complexity of cognitive processes, the domains which cognitive scientists deal with are diverse. Many of these domains overlap with the domains which communication study covers. For example, Collins (1977) stated that

> The most immediate problem areas are representation of knowledge, language understanding, image understanding, question answering, inference, learning, problem solving, and planning. (p. 1)

The understanding of language is not only one of the main concerns of cognitive science, but also one of the fundamental elements that are necessary to solve problems in cognitive science.

Thus, many scholars of cognitive science have studied the comprehension of natural language, such as written texts and stories (e.g., Thorndyke, 1977;
Charniak, 1988; Schank, 1990) and conversation (e.g., Schank, 1977; Reichman, 1978, 1984a, 1984b). Among those scholars, the ones who focused on the comprehension of conversational messages, and particularly the ones who work on the processing of conversational messages by computers, have mentioned the notion of "topic" in their studies.

Referent Approach. McLaughlin (1984) divided studies of topic into the referent approaches and the propositional approaches. According to her, the referent approaches are "characterized by a concern for determining the entity or entities to which an utterance refers" (p. 46) and the propositional approaches are characterized as follows: "topic is not just about some entity, but rather that topic has to do with some predications with respect to one or more entities" (p. 48). McLaughlin gave Schank's (1977) notion of "reduced old topics" and "new topics" as a representative example of the referent approach.

Schank (1977) argued that "as far as computer processing of natural language is concerned, conversation is one of our most challenging problems" (p. 421) and that "topic" plays an important role in the rules which govern "how to hold a conversation" (p. 421). Although it is not
explicitly stated in his paper, Schank seems to assume that one of the most basic rules of conversation is to adhere to the topic given in the previous sequence of a conversation.

In his discussion of the nature of topic and the rules of topic shift in a conversation, Schank (1977) tentatively defined topic as "any object, person, location, action, state, or time that is mentioned in the sentence to be responded to" (p. 422). For example, in the given initial sentence "John bought a red car in Baltimore yesterday" (Schank, 1977, p. 422), any of the components "John," "buying," "car," "red," "Baltimore," and "yesterday" can be perceived as a possible topic and followed up by the second person. In his examples, each component, including "buy" and "red," is treated as a grammatical subject, and therefore a noun, in the succeeding sentences.

However, as Schank (1977) demonstrated, although any of these components can be maintained as a "topic" of a conversation in the succeeding remark, a general statement about any of these components, such as "John is a fisherman," cannot be a sensible response. Schank argued that the problem is not in this tentative definition of topic but in the lack of two considerations. The first consideration is that there are other rules of
conversation, such as "an action statement can be followed by a statement about the effect of that action on the hearer" (p. 423), which govern the use of topic. Thus, "the notion of topic cannot really be adequately defined without the addition of a set of conversational rules that constitute the use of that notion of topic" (Schank, 1977, p. 423). The second consideration is that a topic does not exist in isolation in a sentence, but "only conversations can be said to have topics" (Schank, 1977, p. 425). Thus, the notion of topic has to be examined not in an isolated sentence but in a sequence of sentences (utterances) in which topics are changed and/or maintained utterance by utterance.

Schank argued that when the notion of topic is examined in a sequence of sentences, topics in a sentence have to be seen as potential topics for future responses. According to Schank (1977), a potential topic consists of two parts, a set of "reduced old topics" and a set of "new topics." This account implies that a potential topic is a set of topics. Schank (1977) defined "reduced old topic" as derived from the previous sentence and being "composed of the set of concepts that have been paid attention to in the formulation of the NEW TOPIC" (p. 425) and "new topic" as being "composed of elements from the REDUCED OLD TOPIC and new elements introduced by the speaker" (p. 425).
In the following sequence given by Schank (1977), for example, the person who uttered the first sentence presented a set of concepts, i.e., "John," "buying," "car," "red," "Baltimore," and "yesterday," and the second person used some of the concepts to form a potential topic which, in turn, will be used by the person who responds to the second person's utterance.

A: John bought a red car in Baltimore yesterday.

B: You mean he's not going to buy my car?

In the potential topic of B's utterance, the set of "reduced old topics" include "John," "buy," and "car" and the set of "new topics" include "someone," "buy," and "car (mine)." To respond to B's utterance, A can use some of the concepts in B's potential topic. Thus, A's utterance in the following sequence is a proper response to B's utterance:

B: You mean he's not going to buy my car?

A: Don't worry, I'll buy your old car.

This response faithfully adheres to the explicit topics.

However, other types of response to B's utterance, such as "Selling cars is very annoying," and "Yes, John does that kind of thing all the time," are also possible and proper. To explain the legitimacy of these responses, Schank (1977) argued that, in addition to the "reduced old topic" and the "new topic," there are two other kinds of
topic which determine possible responses. These topics are referred to as "supertopic" and "metatopic."

According to Schank (1977), a "supertopic" consists of items common to the sentence to be responded to and the response, particularly when the sentence to be responded to and the response refer to different events. Thus, in the following sequence, the "supertopic" is "selling/buying cars."

B: You mean he's not going to buy my car?
A: Selling cars is very annoying. I remember the trouble I had selling my Edsel.

A "metatopic" is defined by Schank (1977) as a comment that can be inferred from the interaction of the topics in the sentence to be responded to and the topics selected to be in the response. For example, in the following sequence, the "metatopic" is "John's betrayal of me."

B: You mean he's not going to buy my car?
A: Yes, John does that kind of thing all the time. Do you remember when he promised to buy Al's house?

Schank (1977) argued that all four types of topic are provided in B's utterance as potential topics for A's use in the succeeding utterance.

Although all four types are called topics, they share different characteristics. First, in the above
examples, "reduced old topics" and "new topics" are basically nouns (note: "buy" was listed as "buying" by Schank), whereas a "supertopic" and a "metatopic" are noun phrases. "Metatopic" especially (e.g., "John's betrayal of me") has a very complex form, and it can easily be interpreted as a sentence, although it is expressed as a noun phrase. Second, while "reduced old topics," "new topics" and a "supertopic" are explicitly stated in the utterances, a "metatopic" is stated implicitly. By definition, a "metatopic" is inferred from two successive utterances. Schank (1977) stated that "the metatopic is only available for use and need not ever be actually discussed" (p. 426). Although Schank argued that a "supertopic" also does not need to be discussed, because it is defined as common items in the two successive utterances, it must be explicit in utterances.

According to these characteristics, the four types of topic can be classified into two groups. One is a group of topics that are explicitly stated nouns, "reduced old topics" and "new topics," and the other one is a group of implied statement-like topics, "metatopic." While the former group is referential, as McLaughlin (1984) stated, the latter is not referential. The notion of "supertopic" does not fall into either category. However, it seems
that the problem is not in this categorization, but rather in the notion of "supertopic" itself.

One of the problems of Schank's theory of topic is that the need for the notion of "supertopic" is not clear. Because a potential topic consists of items reduced from items in a previous utterance, there will always be common items within a pair of successive utterances. In other words, the "reduced old topic" must, by definition, share items with previous topics. Therefore, to consider such an independent concept as "supertopic" seems unnecessary. In addition, though Schank argued that a "supertopic" emerges when two different events are referred to by two successive utterances, the distinction between the reference to the same event and the reference to the different events seems not to be essential. Because new topics are not restricted to referring to the same event mentioned in the previous topics, the need to distinguish a reference to the same event and a reference to the different events is not clear in Schank's (1977) theory.

Another problem is that Schank (1977) argued that "metatopic" emerges only in a response. While giving the sentence "John bought a red car in Baltimore yesterday" as an initial sentence in a dialogue, Schank (1977) stated that "the first sentence in a dialogue necessarily has only a set of concepts in it that can be used to form the
topic" (p. 425). However, it is reasonable to assume that a "metatopic" (such as "John's betrayal of you") existed when a conversant uttered the initial sentence. As opposed to Schank's view, it is argued in this thesis that when a conversant engages in a conversation, he/she has in mind an evaluational statement which he/she wants to present in a conversation.

However, despite these problems, it is clear that Schank (1977) assumed the existence of two types of entity in conversational messages. The two types are the noun-type ones, "reduced old topic" and "new topic," and a statement-like one, "metatopic." There is a similarity between the distinction between these two types of topic and the distinction between "topic" and "issue" in this thesis. The noun-type entities, being nouns selected by a speaker and stated explicitly in a sentence, have characteristics similar to the notion of "topic" in this thesis, whereas "metatopic" is similar to the notion of "issue" in this thesis.

Thus, for example, one of Schank's (1977) conversational sequences which involves a "metatopic" can be interpreted using the two terms "topic" and "issue."

A: John bought a red car in Baltimore yesterday.
B: You mean he's not going to buy my car?
A: Yes, John does that kind of thing all the time.
When Person A uttered the first sentence, he/she had in mind an "issue," an evaluational statement about "topic," "John" (that is, "John is a person who betrays his friend"). The only item common to "reduced old topics" and "new topic" in both B's utterance and A's second utterance is "John." This item "John" is also the subject of the issue statement. Furthermore, the only common item "John" appears to be functioning as the subject in all three explicitly uttered sentences.

Propositional Approach. In contrast to Schank (1977), who examined a conversation sentence by sentence, Reichman (1978), in her study of conversational coherency, analyzed a conversation by using a larger unit, a group of utterances. Consequently, while Schank (1977) sought a topic at the sentence level, Reichman (1978) considered that a topic exists in a group of utterances rather than in a single sentence. McLaughlin (1984) classified Reichman's approach as one of the propositional approaches in which a topic is viewed "as being 'about' a proposition" (p. 48), as opposed to a referential approach.

Reichman (1978) stated that "superficially, a conversation is a sequence of utterances" (p. 291) and flows linearly, but that at a deeper level it is hierarchically structured. According to Reichman (1978),
this hierarchical structure is formed by groups of utterances, each of which "refers to a single issue or episode" (p. 291). Reichman (1978) called such a group of utterances a "context space." According to Reichman, each context space contains a topic and a set of items, and in order to maintain coherency in a conversation a conversant should be aware of the following three entities: a context space, a discourse topic, and the items mentioned in the context space.

First, in order to maintain conversational coherency, a conversant must be aware of a structural organization of context spaces in a conversation. Reichman (1978) suggested that there are at least two types of context space distinguished by their main concern, i.e., "issue context space" and "event context space." An issue context space is a group of utterances which concerns a general issue, and an event context space is a group of utterances which concerns a particular episode and the events that occurred therein. Reichman (1978) argued that although a conversation consists of more than one context space, only one context space is discussed at a time. According to Reichman (1978), there are two situations in which the context space under discussion ends. One situation occurs when the context space is thoroughly discussed and a conclusion is reached.
In this case, the context space is terminated. The other situation occurs when that the context space is interrupted by another context space. The interrupted context space may be resumed later on in the same conversation. In this account, Reichman (1978) claimed that context spaces are hierarchically structured in a conversation rather than linearly organized.

The second entity to which a conversant must pay attention in order to maintain conversational coherency is a discourse topic. The notion of discourse topic was defined by Reichman (1978) as being "equivalent to the one that denotes the relationship that holds between a title and the passage that the title applies to" (p. 298).

Thus, according to Reichman (1978), a topic exists not in a single sentence but in a group of utterances. Reichman (1978) claimed that when a group of utterances concerns a general issue, the general issue itself becomes the topic of the group of utterances, and when a group of utterances concerns an episode, a point being expressed in the group of utterances becomes a topic of the group of utterances. For instance, Reichman (1978) gave the following as an example of a topic of an issue context space in a naturally occurring conversation:

Sue, in general, putting her feelings on an intellectual basis" (p. 291)
Then Reichman (1978) gave the following as an example of a topic of an event context space in the same conversation excerpt:

Sue, in a conversation with Carol, putting her feelings about her recent breakup on an intellectual basis. (p. 292)

The topics of these two context spaces are almost identical. The only difference is that the latter involves more specific items while the former was general.

According to Reichman (1978), the relationship between an issue context space and an event context space is either that an event context space illustrates the previous issue context space or that an issue context space is a generalization from the previous event context space. This account implies that the function of an event context space is to provide a specific case of a general issue presented in an issue context space. Thus, it is assumed that when an issue context space and an event context space emerge in a conversation, they share a topic, i.e., a general issue which is the main concern of an issue context space. In fact, in her later work, Reichman (1984a) reclassified context spaces into issue context spaces and non-issue context spaces, and claimed that "issue [context] spaces act as 'topic-setters'" (p. 166) and that only issue context spaces involve a topic. Tracy's (1982) experiment on topic identification, to be
discussed below, also confirmed the speculation that when an issue context space and an event context space coexist in a conversation, a general issue is taken as a topic of the conversation.

The third entity which Reichman (1978) claimed to be important in maintaining conversational coherency is a set of items which are involved in a context space. Reichman (1978) argued that although a group of utterances concerns many items, such as actors, objects, time, duration, and location, in order to make an utterance a proper response, a listener has to respond to the items that a speaker focused on. Reichman (1978) suggested that "mere mention of a concept does not imply that a speaker is focusing" (p. 290), but rather that a speaker assigns a certain degree of focus to those items. The degree of focus given to an item given by a conversant was called "focus level" in Reichman's analysis. Reichman (1978) argued that the assignment of a focus level is determined by a speaker's perspective and that "the resulting assignment of focus levels has some correspondence to one's intuitive notion of an entity's degree of importance in a narrative or to an issue" (p. 304).

In addition, Reichman claimed that when an actor is the item that is given the high level of focus, it is referred to by a pronominal form in utterances. While the
pronominalization of a noun is seen as a device to
demonstrate the acknowledgment of a topic by a listener
(e.g., West and Garcia, 1988; Luszcz and Bacharach, 1983),
Reichman (1978, 1984b) emphasized that among items
mentioned in utterances, only the one which is assigned a
high level of focus by a speaker is pronominalized.

Despite the differences in terminology, there are
similarities between the entities which Reichman (1978)
dealt with and the notions of "issue" and "topic" in this
thesis. In this thesis, an issue is claimed to be an
evaluational statement about things (e.g., objects,
persons, places, events, plans, and abstract ideas) and a
topic is the thing which is evaluated and thus becomes the
central focus of the issue.

Being nouns and being focused on, Reichman's
notion of "a list of items being focused upon" is similar
to what is called "topic" in this thesis. However,
whereas it is considered in this thesis that a "topic" is
the item which becomes the center focus in the issue
statement, Reichman (1978) did not isolate such an item.
In other words, although a list of items involves a
"topic," there is no specific term for such an item in
Reichman's analysis. For instance, Reichman (1978) did
not have any term to denote the item "Sue" which is the
topic in the following example of an issue, other than
calling it simply an item which is assigned a high-level focus.

Sue, in general, putting her feelings on an intellectual basis. (p. 291)

Instead of giving a term for this notion, Reichman (1978) used both of the terms topic and issue for her notion of issue.

Thus, what Reichman (1978) called a topic (an issue), such as the above phrase, is very close to what is called "issue" in this thesis. Although the above topic is a noun phrase (a very long one) and does not take sentence form, it involves a verb. And like Schank's "metatopic," it can easily be interpreted as a sentence. This example also shows that it is not difficult to identify a particular item which is focused on, i.e., "topic" in this thesis: here it is "Sue." Although the above example is not an evaluational statement, in her later study Reichman (1984a) argued that issue context spaces "generally contain assertions that a given state-of-affairs is true or false, good or bad, possible or not possible, and so on" (p. 166).

Additionally, in her later study, Reichman (1984a) claimed that "the substantive claims within the context space were explicitly stated by the speaker," or were "implicit and thus inferred by the system" (p. 171). This claim affirms one of the characteristics of issue claimed
in this thesis, that is, an issue can be implicitly presented in a conversation.

Applying Reichman's (1978) distinction between an issue context space and an event context space, Tracy (1982) conducted experiments to examine how conversants treat topics of these context spaces in order to maintain conversational coherency. While Reichman (1978) originally maintained that both an issue context space and an event context space involve a discourse topic, Tracy (1982) claimed that conversants consider an issue rather than an event as a topic of a conversation.

In her experiments, Tracy (1982) provided four types of conversational messages: (1) one in which an event follows an issue, (2) one in which an issue follows an event, (3) one in which several events but no issue are involved, and (4) one which consists of only an event. In her first experiment, participants were shown messages of these types and asked to identify a topic. Tracy (1982) reported that most of participants selected an issue as a topic for all types but the ones consisting of a single event. In a second experiment, Tracy (1982) supplied two types of utterance, one concerning an issue and one concerning an event, as possible continuations of the conversational messages used in the first experiment. Tracy (1982) found that when a given conversational
message involves both an issue and an event, participants rated the continuation which concerned an issue as more appropriate for the conversational message than the continuation which concerned an event. These results supports Reichman's claim that when a conversation involves an issue context space and an event context space, an issue context space provides a topic of conversation.

Another important characteristic of "issue" is revealed by Tracy's (1982) finding that participants always identify an issue as a topic of a conversation, not only when a conversational message involves an issue, but also when a conversational message does not involve an issue, but events. That is, an issue can be implicit. In this thesis it is claimed that an "issue" does not have to be explicitly stated but can be implicitly presented in a conversation, and that in either case, a conversant is able to identify the issue presented by the conversation partner. Although Tracy (1982) did not provide any explanation for it, her finding supports this claim.

Although Tracy's study was based on Reichman's (1978) concepts of an issue context space and an event context space, what Tracy considered as a topic is different from what Reichman considered as a topic. The primary difference is that whereas Reichman (1978)
considered that a topic of an issue context space and a
topic of an event context space have similar
characteristics, Tracy (1982, 1984a) considered them to be
distinct. This difference originated from Reichman's
(1978) and Tracy's (1982, 1984a) different views on the
topic of an event context space.

While Reichman (1978) defined a topic in an event
context space as a point expressed in an event context
space, Tracy (1982, 1984a) considered an event itself as a
topic when a conversational message concerns an event.
For example, Tracy (1984a) claimed that in the following
conversational message in which an event context space
follows an issue context space, a topic of the event
context space is the event, "a camping trip with Sara."

I ran into Sara the other day; she seems like
she always does --- strange. We went camping
with a couple of other people one weekend. We'd
been canoeing all day and everybody was
exhausted. We got off the river when it began
to rain and put out our tents. It was terrible.
Everybody was snapping at each other. Then Sara
decided to go off in the pouring rain and
explore. The rest of us wanted to get in our
sleeping bags and get warm but Sara wanted to
explore. Ellie ended up going with her because
we didn't want her to go alone and we couldn't
persuade her to wait till morning. (Tracy,
1984a, p. 449)

According to Reichman's (1978) definition, the topic of
the event context space would the following: Sara, in the
recent camping trip, behaving in a strange way.
In contrast, Tracy's (1982, 1984a) and Reichman's (1978) notions of issue (a topic of an issue context space) are very similar, and differ only in form. While Reichman (1978) considered an issue as a noun phrase, Tracy (1982, 1984a) considered an issue as a main point which takes sentence form. For example, Tracy (1984) gave the sentence "Sara is a strange person" as an issue of the above conversational message. According to Reichman's (1978) definition, an issue of this message would be the following: Sara, in general, behaving in a strange way. Taking a sentence form, Tracy's topic is closer to the notion of issue in this thesis than is Reichman's topic, which is a noun phrase.

Furthermore, although Tracy (1982, 1984a) did not explicitly state that an issue (a topic of an issue context space) is an evaluational statement, three out of four issues given by Tracy (1982) are evaluational in nature:

- Knowledge of behaviors underlying inferences will make students better interviewers.
- What makes a good vacation.
- Sara is a strange person.
- The speaker's attempts to remedy feeling isolated. (p. 298-299)
Although Tracy defined an issue simply as a main point, these examples suggest the nature of issue, that is, an issue is a speaker's evaluational statement about things.

However, while providing detailed discussions and empirical evidence of the notion of issue, Reichman's (1978, 1984a, 1984b) and Tracy's (1982, 1983, 1984a, 1984b) approaches have a problem. That is, while using two terms, topic and issue, to denote the concept of a main concern of a conversation ("issue" in this thesis), the importance of the concept of a main item ("topic" in this thesis) of the main concern is sometimes overlooked. As already mentioned, although Reichman (1978) proposed a notion of "focused item," all the items in a group of utterances were considered to be assigned a focus level and there was no specific concept of a main item in a group of utterances.

The lack of a concept of a main item seems to lead to some confusion. For example, Tracy (1983, 1984a, 1984b) used conversational messages such as:

People badmouth it but it seems to me it's somewhat uncalled for. It serves a number of different needs --- it has a function. Sara and I went to Burdeens for lunch the other day. The service was not very good. It took two hours and I was late for my meeting. (1983, p. 326)

She argued that this is a message whose issue is designed to be difficult to comprehend. Then she gave a comprehension cue, "eating at McDonald's," in order to
help participants in her study to comprehend the issue. However, the "issue" of this message seems very clear, that is, "It (eating at McDonald's) is not as bad as people say." What makes this message difficult to comprehend is not the lack of an "issue," as Tracy claimed, but the lack of an explicit "topic," which is referred to as "it" instead of "McDonald's" or "Eating at McDonald's." In this thesis, it is claimed that presenting a topic in a conversation prior to an issue is a conversant's responsibility. Thus, in a real situation what the pronoun "it" refers to in the above conversational message must be known to both conversants at the time the message is uttered.

**Given and New Information.** The principle that part of the information must be presented prior to the rest was reported elsewhere. For instance, Clark and Haviland (1977) stated that:

> He [a conversant] must talk about topics he believes his audience can understand, make his part of the conversation coherent with the rest, and say something worthwhile. (p.1)

Clark and Haviland (1977) referred to the part of the information which the speaker believes "the listener already knows and accepts as true" as "given-information" and to the information which the speaker believes "the
listener does not yet know" (p.3), and thus thinks it is worthwhile to say, as "new-information." Clark and Haviland (1977) argued that a speaker is obliged to make a syntactic distinction between given information and new information in delivering a sentence and called such a syntactic distinction "the given-new contract." Clark and Haviland (1977) also claimed that a listener, in turn, uses the given-new contract to understand the sentence. For example, Clark and Haviland (1977) compared the length of time that listeners needed to comprehend the sentence "The beer was warm" in the following two sequences:

(1) Horace got some beer out of the car. The beer was warm.

(2) Horace got some picnic supplies out of the car. The beer was warm. (p. 21)

Clark and Haviland (1977) reported that people took longer to comprehend the sentence "The beer was warm" in the second sequence where "beer," a part of the new information, was not previously given.

Acknowledging the notion of the given-new information contract, Keenan and Schieffelin (1976) made a similar claim. As mentioned in a previous section of this chapter, Keenan and Schieffelin (1976) argued that in order to determine a particular discourse topic (a particular issue), a listener must "identify those objects, individuals, ideas, events, etc., that play a
role in the discourse topic [issue]" (p. 349). Therefore, the speaker is required to provide "sufficient information for the listener to identify objects, etc." (Keenan & Schieffelin, 1976, p. 350). In contrast to Clark and Haviland (1977), who claimed that the given-new contract is accomplished by syntactic devices such as the definite article, Keenan and Schieffelin (1976) argued that a speaker can also use a phonological device, such as rising intonation, as well as using the definite article and describing an object.

Halliday (1967), also, made a distinction between given and new information in his analysis of English clauses. Halliday (1967) defined the terms "given" and "new" as "assigned, or not assigned, by the speaker, the status of being derivable from the preceding discourse" (p. 176) and stated that they are not to be interpreted as having been previously mentioned or not. Halliday (1967) considered that the distinction between given and new information is realized phonologically, by intonation features. In addition, according to Halliday (1967), the given-new distinction is to be differentiated from two other distinctions: the theme-rheme distinction, mentioned in a previous section, which is realized by "the sequence of elements in the clause" (p. 175), and the known-unknown distinction, which is realized by "certain structural
devices" (p. 175). However, in his later work, Halliday (1989b) dropped the known-unknown distinction.

Although this thesis claims that before new information is delivered, part of it must already be known to the listener, the distinctions of given-new information reviewed above do not fully agree with the distinction between "topic" and "issue" in this thesis. That is to say, while the above theories contrasted given and new information and treated them as separate entities, this thesis emphasizes that given information (a topic) is a part of new information (an issue).

Conversation Memory Organization Packet (MOP). In addition to the works of Schank (1977) and Reichman (1978), a series of studies by Kellermann and her colleagues (Kellermann, Broetzmann, Lim, & Kitao, 1989; Kellermann & Lim, 1990; Kellermann, 1991) is another example of conversation studies which deal with conversation in relation to the individual's cognitive processes. Like Reichman (1978, 1984a, 1984b), Kellermann and her colleagues (Kellermann et al., 1989; Kellermann & Lim, 1990; Kellermann, 1991) claimed that conversations are both linearly and hierarchically structured. Whereas Reichman proposed a notion of context space as a component of conversational structure, Kellermann employed a notion
of scene as a comparable component of conversational structure. A scene was defined by Kellermann as consisting of a set of utterances and as "having a single, overarching content objective" (Kellermann & Lim, 1990, p. 1163). There is a resemblance between Kellermann's notion of scene and Reichman's context space, which is defined as a group of utterances which concerns an issue or an episode. Furthermore, just as Reichman claimed that each context space involves a topic, Kellermann claimed that scenes are topic-centered and thus that each scene can be identified by its topic.

The notion of scene was originally proposed by Schank and Abelson (1977) and later modified by Schank (1982). Schank (1977), in his attempt to define conversational rules (reviewed earlier), maintained that the structure of conversation reflects cognitive structure:

> What seems to be the case is that there are certain natural flows of thoughts that make use of some relatively simple rule. These rules are probably the same rules that apply in conversation....At the least, the rules for conversation are a subset of the rules of thought. (p. 429)

Moreover, Schank and Abelson (1977; Schank, 1982) argued that cognitive structure, particularly knowledge structure, plays an important role in understanding a situation and behaving properly in that situation.
Schank and Abelson (1977) proposed an episodic view of memory as their conception of knowledge structure. According to Schank and Abelson (1977), "an episodic view of memory claims that memory is organized around personal experiences of episodes rather than around abstract semantic categories" (p. 17). Among the many episodes that an individual experiences, some episodes, such as going to a restaurant or seeing a doctor, are experienced repeatedly. Schank and Abelson (1977) claimed that each of these repeated episodes is remembered as a standardized generalized episode. Such a standardized episode, which consists of a sequence of actions, was called a script (Schank & Abelson, 1977) or a scene (Schank, 1982).

Originally Schank and Abelson (1977) claimed that scenes are ordered within a standard event sequence called a script. But in later work Schank (1982) denied the view that a script organizes scenes and redefined a script as a specific episode which is attached to a scene and gives a detailed variation to a scene:

A scene consists of a generally-defined sequence of actions, whereas a script represents particular realizations of the generalizations in a scene. Specific memories can be organized under scripts. (p. 95)

Instead, Schank (1982) proposed a new concept called a memory organization packet (MOP). According to Schank (1982), the function of MOPs was similar to that of
scripts in the earlier work (Schank and Abelson, 1977), that is, to organize scenes into a sequence. Whereas a script involves memory of a specific experience, a MOP does not itself involve a particular memory. Rather, a MOP was considered to be a highly abstract framework in memory structure, which holds scenes in sequential or chronological order. To illustrate the nature of these components of memory structure, Schank (1982) presented a MOP which organizes scenes in an episode of taking an airplane. According to Schank (1982), in order to understand the situation and to behave properly, an individual who is going to take an airplane looks for a MOP which organizes scenes related to taking an airplane. This MOP involves scenes such as checking in, waiting area, boarding, sitting in the plane, exiting from the airplane, and collecting baggage.

In addition to those scenes and MOPs that are derived from physical experiences, Schank (1982) proposed the existence of scenes and an MOP that are more generalized and abstract. These scenes and the MOP were termed universal. According to Schank (1982), universal scenes are scenes "that contain no context information whatsoever, and are defined only in terms of the kinds of roles that they play in MOP structure" (p. 149). The
following are eight universal scenes suggested by Schank (1982):

PREPARATORY
ENABLEMENT
PRECONDITION
SIDE-CONDITION
ACTION
POST-CONDITION
DISENABLEMENT
REALIZATION or TRANSITION (p. 150)

The universal MOP was defined as an abstraction of all MOPs and as consisting of universal scenes. Schank (1982) argued that when one fails to understand the situation by using existing MOPs, one can use the universal MOP to grasp what might be going on "at the highest levels of generality" (p. 150).

Schank and Abelson (1977) suggested that the view of standardized episodic memory can be used to explain language-generation behavior. Adopting Schank's theory of memory organization packets (MOPs), Kellermann et al. (1989) provided empirical evidence that conversants have in their memories such a standardized event sequence of an initial conversation with a stranger. Also, through further studies, Kellermann (1991; Kellermann et al., 1989; Kellermann & Lim, 1990) reported that this standardized event sequence matched with actual sequences of informal initial conversations between strangers.

In one experiment, Kellermann et al. (1989) asked undergraduate students to list verbal actions which they
think typically occur during an informal initial interaction between two strangers. Participants were instructed that the verbal actions must be listed in the chronological order in which participants think the actions occur in initial interactions. The responses obtained were categorized by the researchers into forty-nine verbal actions. For example, the responses "discuss family," "discuss brother/sister," and "discuss parents" were categorized into one group; "family." Among those groups of actions frequently listed by participants were greetings, introduction, present situation, where live, hometown, persons known in common, education, discuss future meeting, positive evaluation of person, reason for terminating (a conversation), and goodbyes.

Kellermann et al. (1989) not only reported that many actions were listed by multiple participants, but also reported that the order of these actions was relatively consistent among the participants. Kellermann et al. (1989) concluded that this result indicates the existence of a fixed action sequence of initial interaction in the participants' memory. Kellermann et al. (1989) called this fixed sequence the informal initial conversation MOP (after Schank, 1982). Each action in this fixed sequence was considered as a scene in this MOP.
Although Schank and Abelson (1977; Schank, 1982) did not make any connection between the notion of topic and their theory of memory structure, Kellermann et al. (1989) claimed that each scene in this fixed sequence involves a topic. Kellermann et al. (1989) defined a scene as being equivalent to what Smith, Meux, Coombs, Nuthall, and Precians (1967) called a "venture," that is "a segment of discourse consisting of a set of utterances dealing with a single topic and having a single objective" (p. 33). While Kellermann et al. (1989) did not give any further description of the notion of topic, they claimed that scenes can be identified by their topics and the two terms, scene and topic, were used interchangeably in the later studies (Kellermann & Lim, 1990; Kellermann, 1991). Thus, what Kellermann et al. considered to be a topic is equivalent to what is discussed in each scene, such as present situation, hometown, family, sports, television, or education.

Although greetings and goodbyes are not considered as topics in this thesis, what Kellermann et al. called topic is similar to the notion of topic in this thesis for the following reasons. First, a topic is not merely what is mentioned but is a central focus of a discussion, e.g., "discuss family." Second, a topic is basically a noun and is not propositional, e.g., "family." Third, because a
topic is discussed in a scene, a topic exists in a group of utterances rather than in a single sentence.

Kellermann et al. (1989), like Schank (1982), argued that cognitive structure reflects conversational behavior. Therefore, they speculated that the structure of actual conversations between strangers would correspond to the structure of the initial conversation MOP which was generated from the results of the survey.

In a second experiment, Kellermann et al. (1989) videotaped initial conversations between two college students who did not know each other. Scenes were then isolated from each conversation. Kellermann et al. (1989) reported that although there were a few unique scenes in actual conversations, on the average, more than 90 percent of the scenes in actual conversations were found in the initial conversation MOP. Moreover, it was reported that the sequential order of each scene in conversations matched the sequential order of the scenes in the initial conversation MOP. These findings demonstrate that conversations are organized by topics (scenes) in the same way in which scenes are organized in the initial conversation MOP. The same correspondence between actual conversations and the MOP was found in the later studies (e.g., Kellermann & Lim, 1990, Kellermann, 1991). This correspondence was attributed by Kellermann et al. (1989)
to the belief that discourse is guided and comprehended by a cognitive structure (an initial conversation MOP). However, although their studies showed the correspondence between cognitive structure and conversational structure, it is not clear that a causal relationship between them can be assumed.

In addition, Kellermann et al. (1989) reported that there was a fixed sequence within a scene. They found that some scenes obtained in the survey involved a sequence of generalized actions that are the same regardless of the topic. Kellermann et al. (1989) isolated six actions in this sequence: "get facts, discuss facts, evaluate facts, discuss explanations, discuss goals/intentions, and discuss enabling conditions of the goals/intentions" (p. 43). Kellermann et al. (1989) speculated that this sequence could be one of the universal scenes which Schank (1982) defined as the most abstract context-free scenes. Kellermann et al. (1989) suggested that conversants "would be capable of talking about any topic (scene) by simply applying the generalized actions in the universal scene" (p. 46).

Although the data were limited to initial interactions between strangers, which would be very routine in nature, studies of Kellermann and her colleagues (Kellermann et al., 1989; Kellermann & Lim,
1990; Kellermann, 1991) illustrated some characteristics of conversation that relate to the notion of topic. First, Kellermann and her colleagues demonstrated that conversations are organized by groups of utterances, each of which involves a single topic and is thus identified by the topic. Second, in the discussion about the universal scene, Kellermann et al. (1989) suggested that a conversant does not simply discuss a topic, but ultimately evaluates it. This suggestion agrees with the claim in this thesis that one's objective in a conversation is not just to maintain a topic but to express one's evaluation of it, that is, to present an "issue."

Summary. While analyzing conversational messages, both Schank and Reichman made clear distinctions between "topic" and "issue" as different entities, although they used different terms for these concepts. Moreover, interestingly, both accounts acknowledged that one of the characteristics of "issue" is being evaluative.

However, although some cognitive scientist are dealing with conversational message as reviewed, their aim is still to understand one's cognitive process, but not communication itself. In other words, such an entity as "topic" is seen in the scope of how one comprehends conversational messages, rather than seen in
communication, where more than two people involved. Consequently, these cognitive scientists' accounts often lack the empirical evidence in the communication situation.

However, their concepts and theories are very much applicable for communication study. A series of empirical studies of Tracy and ones of Kellermann are fine examples of the applicational study of these cognitive scientists' accounts.

Sociological and Interpersonal Communication Approaches

While studies of conversation in linguistics and cognitive science tend to focus on the nature of topic, and thus attempt to explicitly define the notion of topic, sociological and interpersonal-communication studies of conversation tend to make little or no attempt to define the notion of topic. Some of the main concerns of sociological and interpersonal studies of conversation are the content of topics and its relationship with the sociological characteristics of the conversants (Haas and Sherman, 1982; Kiper, 1987), the processes in which topics are brought into a conversation, maintained, changed, and closed (Button and Casey, 1984, 1985), and the influence of the sociological characteristics of and interpersonal relationships between conversants on these processes.
(Maynard, 1980; Maynard and Zimmerman, 1984; Boden and Bielby, 1986; West and Garcia, 1988; Palmer, 1989).

**Contents of Topics.** Some sociological studies focus on the relationship between topic content, i.e., what is talked about, and conversants' social characteristics, such as gender, age, and their roles as spouse, parent, child, sibling, friend, coworker, or acquaintance. For example, Haas and Sherman (1982) conducted a survey to learn what topics are chosen in same-sex dyads' conversations by adult males and females when they are taking various roles, such as parent, child, sibling, friend, or coworker. Haas and Sherman (1982) gave participants a list of topics and asked them to rate how often each given topic is discussed in conversations with same-sex conversation partners in different roles. The list of topics given consisted of items such as "the news," "family," "work," "food," "clothing," "health," "music and arts," "money," "men," "women," "relationship problems," "spectator sports," "participant sports," and "hunting and fishing." Haas and Sherman (1982) reported that the topics most often discussed in a conversation differ according to the conversation partner's role and they concluded that roles help determine a topic of conversation. For example, by both male and female
participants, "family" was most frequently chosen as a topic discussed "often" with their siblings, parents, and children, while "other sex" was most frequently chosen as a topic often discussed in conversations with their friends. In addition, Haas and Sherman (1982) found that a much larger number of female participants reported that "family" is the topic most often discussed with their mothers and sisters than male participants reported that "family" is the topic often discussed with their fathers and brothers. The difference between the numbers of male and female participants was statistically significant. This finding suggests that there is a gender difference as well as a difference in the partner's role in the selection of the topic of a conversation.

Kiper's (1987) observation of naturally occurring conversations confirmed a gender difference in topic selection. As a result of the content analysis of tape-recorded naturally occurring conversations, Kiper (1987) reported that all-male, all-female, and mixed groups of coworkers at work talk about different topics. For example, while topics related to "home and family," such as "children," "child care," "pets," "cooking/eating," and "grocery shopping," are most frequently discussed by all-female groups, topics related to "work" were most frequently discussed by all-male groups.
While the list of topics given by Kiper (1987) are drawn from actual conversations, the list of topics used by Haas and Sherman (1982) is primarily given by the researchers and includes rather broad items (e.g., the news, family, work). In this sense, the items given by Haas and Sherman (1982) are rather categories of topics than individual topics discussed in conversations.

Despite the difference, both studies seem to share a similar view of the nature of topic. First, a topic is viewed simply as what a conversation is about, although there is no explicit attempt to define the notion of topic in either study. Second, as shown above, topics are in the form of a noun or, at most, a noun phrase. However, there is no further attempt to define the notion of topic in either study.

Process of Topic Change. While the above studies deal mainly with topic content, there are some sociological studies of conversation focusing on the processes in which topics are introduced, maintained and changed in conversations. For example, from the observations of naturally occurring conversations, Button and Casey (1984) claimed that there are prototypical sequences which are "designed to interactionally and mutually establish topic" (p. 167) and that these
sequences are independent of topic content. Button and Casey (1984) reported that in one of the typical sequences, a speaker starts a conversation by a general inquiry about newsworthy events, such as "What's new?" Button and Casey (1984) called this general inquiry "topic initial elicitors," and claimed that in order to generate a topic, a "topic initial elicitor" has to be followed by two successive utterances. In other words, introducing a new topic into a conversation requires a three-part sequence. The three parts are described as follows:

The first part consists of a topic initial elicitor that is packaged as an inquiry concerning the possibility of presenting a report of a newsworthy event. The second part is a positive response to the first part and produces a newsworthy-event-report that has the status of a possible topic initial. The third part is topicalizer; that is, it topicalizes the prior possible topic initial and provides for talk on the reported event. (Button & Casey, 1984, p. 167)

For example, in the following exchange, A's first question is a topic initial elicitor, B's response initiates a possible topic, and A's response to B topicalizes a topic.

A: What's new?
B: Yeah, I got a letter from Mary.
A: Really?

Button and Casey (1985) claimed that, in addition to the use of a general inquiry about newsworthy events (a topic initial elicitor), a speaker can initiate a topic in two
other ways. Either a speaker makes an inquiry about a specific newsworthy event, such as "How is your mother's leg?" ("itemized news inquiries") or a speaker brings a newsworthy event into a conversation without being asked ("news announcements"), such as Shirley's second utterance in the following sequence.

Geri : How are you doing?
Shirley: Okay. How are you?
Geri : Oh, all right.
Shirley: Uh, your mother met Michael last night.

(This sequence is originally from Button and Casey (1985, p. 21), but here it is rendered in standard written English.)

As shown above, Button and Casey (1984, 1985) seemed to consider a topic as a newsworthy event which is introduced into a conversation by a one of the conversants and acknowledged ("topicalized") by the other conversant's reply, such as "Really?", "Does she?", or "Yeah."

However, aiming for the extraction of prototypical sequences of topic initiation from naturally occurring conversations, Button and Casey (1984, 1985) did not explicitly define what "topic" is in their studies.

The lack of an explicit definition of "topic" can be attributed to the method of analysis used by Button and Casey (1984, 1985). This method of analysis, in which
observations with preconceptions were forbidden, is called ethnomethodology or conversation analysis. The method was first proposed by Sacks and his colleagues in the early 1970's and has been widely used since then by a group of sociologists (see Schegloff & Sacks, 1973; Sacks, Schegloff & Jefferson, 1974; Atkinson & Heritage, 1984; Button & Casey, 1984, 1985). The main premises of this method are:

(1) that ordinary talk is systematically and strongly organized; (2) that its analysis should be based upon naturally occurring data; and (3) that analytic interests should not be constrained by external considerations. (Atkinson & Heritage, 1984, p. 17)

In other words, their aim in conversation analysis was to find a systematic organization in conversations strictly through observations of naturally occurring conversations, and without having any preconception. Thus, compared to more experimental approaches, this approach shows little tendency to define the terms used in its analysis.

Despite the lack of precision, the data used in these studies show that there are systematic patterns in turn-taking (Sacks, Schegloff, & Jefferson, 1974), in the closing of a conversation (Schegloff & Sacks, 1973), and in the initiation of a topic (Button & Casey, 1984, 1985), in naturally occurring conversations. Based on these findings, some sociologists studied the influence of the sociological characteristics of and interpersonal
relationships between conversants on these patterned organizations and processes of conversations. While in the early studies the data were strictly limited to naturally occurring conversations, in the later studies data collection was extended to conversations which took place in experimental settings.

Relational Aspect in Topic Change. Maynard (1980) and Maynard and Zimmerman (1984) examined how dyads initiate and change topic in conversation and how acquainted and non-acquainted dyads differ in doing so. Through the analysis of transcripts from tape-recorded conversations, Maynard (1980) found that a new topic is regularly introduced after a series of silences (a silence consists of a gap of a half to several seconds between utterances). Topic changes following a series of silences were seen equally in conversations of acquainted dyads and non-acquainted ones. Maynard (1980) reasoned that a topic change occurred as "a solution to a problem of unsuccessful transfer of speakership" (p. 264). A topic change was considered by Maynard (1980) as "an utterance which employs referents unrelated to prior talk in order to implicate a new set of mentionables" (p. 280).

Additionally, Maynard (1980) reported that, while the condition in which a topic change occurred was the
same in acquainted and non-acquainted dyads' conversations, the way in which a new topic was introduced was different between them. This difference was further examined in the later study by Maynard and Zimmerman (1984). They reported that participants in an acquainted dyad introduced a new topic by an announcement of a prior experience shared by both parties, while participants in a non-acquainted dyad did so by a question, such as "What's your major?" ("pre-topical sequence"). A discussion about the experimental setting which participants were in was used as an introduction of a new topic by both acquainted and non-acquainted dyads. Although the terms given to these methods of introducing a new topic are different, Maynard and Zimmerman's (1984) analysis agrees with Button and Casey's (1984, 1985) analysis, which was mentioned earlier.

Maynard and Zimmerman (1984; Maynard, 1980) emphasized that they were focusing on the "procedures" in which topics are introduced and changed in a conversation and not on the content of topics. Maynard (1980) criticized early studies of conversation which relied heavily on content analysis, and were based on the commonsense notion of topic, that is, "the topic in conversation is what conversation is about" (p. 263). Also, Maynard and Zimmerman (1984) stated that they regard
topical content as secondary to topical structure. However, Maynard (1980) and Maynard & Zimmerman (1984) did not specifically propose an alternative definition of "topic."

Without explicitly defining a notion of topic, Maynard (1980) used various terms related to topic, such as "topicality, topical item," "topical focus," "detailed topical item," "topic shift," "topic change," "topic status," and "topic utterances." One of these terms, "topicality," was defined as "an achievement of conversationalists, something organized and made observable in patterned ways that can be described" (p. 263), and it was considered as "a matter not only of content," but as being "partly constituted in the procedures conversationalist utilize to display understanding and to achieve one turn's proper fit with a prior" (p. 263). A "topic change" was considered by Maynard (1980) as "an utterance which employs referents unrelated to prior talk in order to implicate a new set of mentionables" (p. 280). " Mentionables" is a notion introduced by Schegloff and Sacks (1973) and refers to "what gets talked about in conversation" (p. 300). Thus, in fact, in their conversation analysis Maynard (1980; Maynard and Zimmerman, 1984) take "topic" to be something conversation is about.
Social Characteristics of Conversants and Topic Change. Maynard and Zimmerman's notion of "topicality" was adopted by West and Garcia (1988) in their study of the role of gender in changing conversation topic. West and Garcia (1988) analyzed tape-recorded conversations between non-acquainted male and female college students and reported that three types of topic transition were seen. The three types are (1) a topic transition happening in a development (a collaborative discussion) of a prior topic, (2) a topic transition following an extinction (as a result of a collaborative discussion) of a prior topic, and (3) a topic transition made by one party regardless of a prior topic. West and Garcia (1988) reported that while the first two types of topic transition, which are collaborative, were initiated equally by male and female students, the third type of topic transition, which is not collaborative, was initiated more often by male students than by female students. Therefore, overall male students were found to change topics more often than female students. West and Garcia (1988) called conversation "topical talk" and defined it as "a product of how speakers introduce, develop, and shift between potential 'mentionables,'" as well as "a product of what they actually say" (p. 552).
Thus, although West and Garcia (1988) did not explicitly state it, they consider a topic as being equivalent to "mentionable," that is, what is talked about in a conversation.

Using the same methodology, the so-called ethnomethodology or conversation analysis, Boden and Bielby (1986) also studied the influence of the social characteristics of conversants on the process in which a topic is introduced and maintained. Specifically, their aim was to identify a sequential organization in conversation among elderly persons. Through the analysis of conversations that took place in natural and experimental settings, Boden and Bielby (1986) found that elderly conversants often choose shared historical events, particular time periods, and social experiences as topics of conversation. Boden and Bielby (1986) argued that more importantly these topics "become a kind of 'template' or frame through which present meanings are both shared and collaboratively produced" (p. 74). In conversations of elderly persons "self-narratives and shared historical referrents are interwoven to express a theme of 'the way we were' in terms of 'the way it was' to account for 'the way we are now'" (p. 85). In other words, Boden and Bielby's (1986) account demonstrated that there are two entities in conversations, "topic" and "theme." A topic
was defined as "the interactional stuff of conversation, verbal material that provides participants with a sense of meaning and cohesiveness in interaction" (Boden & Bielby, 1986, p. 74) and a theme was considered to give a conversation an overarching framework. Boden and Bielby (1986) argued that one of the characteristics of conversations between elderly persons is that a prototypical theme, for instance "I am what I am now because of what I was/did/experienced," regularly appears as a framework. In this sense, what Boden and Bielby termed "theme" is similar to "issue" in this thesis.

Interpersonal Communication and Topic Change. Scholars of interpersonal communication, also, have paid attention to topic changes in conversation. Whereas West and Garcia (1988) examined gender difference in topic changes, Palmer (1989), through experimental research, studied the relationship between interpersonal dominance and topic changes. His aim was to find a relationship between conversational control (length of turns and topics) and interpersonal control (interpersonal dominance). In his study participants were shown the transcript of a conversation between two non-acquainted male college students and asked to evaluate on seven-point scale how relevant two successive sentences were and how
relevant two successive turns were. They were also asked
to judge which conversant was dominant in their
relationship. Palmer (1989) reported that the person
whose utterance or utterances in a turn was less relevant
to the prior one was perceived as being more dominant in
the relationship. Palmer (1989) stated that "topic
management regulates content by controlling the subject of
the conversation for any particular utterance or turn" (p.1); Thus it can be said that he regarded a topic as a
subject of the conversation. However, although Palmer
(1989) used the term "topic" and considered "topic
changes" as one of the indicators of interpersonal
dominance, what was measured in Palmer's (1989) study was
the relatedness of successive utterances, and the criteria
of relatedness were left to the participants.

Summary. Despite the lack of precise definitions
of "topic," however, sociological approaches have brought
some useful aspects to the study of conversation.

First, many sociological studies share the
viewpoint that conversation is a collaborative activity
between (among) conversants. For example, adopting
Maynard's (1980) claim that "topicality is an achievement
of conversationalists" (p. 263), Boden and Bielby (1986)
stated that conversation is jointly produced and treated
"topic selection and formulation as a matter of practical accomplishment, that is of collaborative activity" (p. 73). Button and Casey (1984), also, claimed that bringing a new topic into a conversation is a joint activity of two conversants. Similarly, West and Garcia (1988) reported that their findings suggest that the majority of topic changes are produced through joint activity, i.e., "topic changes were preceded by conversationalists' collaborative closure of prior topics or by cases of topic 'death.' So most topic changes were in some sense warranted by speakers' joint activity or inactivity" (p. 568).

Second, while treating a conversation as a joint activity, scholars who adopt sociological approaches examine a series of exchanges of utterances, not a single sentence or utterance. Because its analysis of language was based on the analysis of isolated single sentences, some linguistic theories were greatly criticized by the sociologists who developed "ethnomethodology," (See Heritage & Atkinson, 1984). For instance, in his criticism of speech act theory and its use in the study of conversation, Schegloff (1984) stated:

The use of the sheer occurrence of the lexical items, without regard to the placement of the utterances in which they occur in the sequential organization of conversation, can be badly misleading, though not implausible. The same thing is true where syntax is so used. (p. 30)
Thus, many sociological studies of conversation use a whole conversation or at least a series of exchanges as the unit of analysis. For example, as mentioned earlier, Button and Casey (1984, 1985) claimed that it takes at least three turns of exchanges of utterances to initiate a new topic. Schegloff and Sacks (1973), also demonstrated that closing a conversation require series of exchanges.

The simple facts that a conversation requires at least two persons involved and that a conversation consists of more than one exchange seem to signify the importance of these two aspects in conversation study. In this thesis, it is claimed that to present an issue in a conversation is one of the objectives of a conversation and to do so a conversant has to first present a topic in a conversation. Then a topic has to be acknowledged by a conversation partner before the conversant presents an issue. Unless a presented topic is acknowledged by a partner, an item mentioned as a topic cannot be the topic of a conversation. Therefore, this thesis too claims that a conversation must be considered as a collaborative activity and must be studied at multiple-sentence level.
In this thesis it is claimed that one of the main objectives of having conversation is to present one's own judgment, an evaluational statement, about things (e.g., objects, persons, places, events, plans and abstract ideas). Such an evaluational statement is called an "issue" in this thesis. The presentation and discussion of an "issue" is one of the main objectives of having conversations; therefore "issue" is considered to be one of the most important entities in the understanding of conversation. The object of an evaluational statement, i.e., a thing which is evaluated in an "issue," is called a "topic" in this thesis. The relationship between an "issue" and a "topic" is that an "issue" (an evaluational statement) involves a "topic" as a left-most noun phrase. Because a "topic" is claimed to be a part of an "issue," the importance of a topic as a conversational entity is considered in this thesis to be secondary to the importance of an issue. Palmer (1989) stated that "by controlling floor [speaking time] and topic one can
regulate opportunities to choose and present issues for negotiation and exchange" (p. 1).

However, while there is a relatively large number of studies, in various disciplines, which focus on the notion of topic, there are not many studies which focus on the notion of issue. In particular, except for a few scholars, e.g., Murray (1983) and Reichman (1984b), it has not been explicitly claimed that being evaluational is one of the characteristics of an issue. Two factors may explain this imbalance in the numbers of studies of topic and issue.

First, in linguistics, the notion of topic had long been studied before the notion of issue emerged. The notion of topic was studied in relation to "subject" as a grammatical or syntactic entity of language, and especially of sentences. These studies were primarily based on the analysis of single sentences. Because an issue is in sentence form, and thus emerges in a discourse rather than in a single sentence, the notion of issue cannot be studied through the analysis of single sentences. Therefore, it was only after scholars started to use the discourse as the unit of analysis that they started dealing with the notion of issue.

Second, although some scholars were aware of a statement-type entity in addition to a noun-type entity
("topic"), often both entities were called topic. While some scholars used the term "issue" to denote the notion of issue, e.g., Murray (1983) and Reichman (1978, 1984a, 1984b), some scholars used such terms as "metatopic" and "discourse topic" when referring to a similar notion. For example, Schank (1977) referred to as "metatopic" a noun phrase which is "a comment that can be inferred from the interaction of two conceptualizations" (p. 426) in a conversation. Other scholars used the term "discourse topic" (Van Dijk, 1977, 1981, 1985; Keenan & Schieffelin, 1976; Foster, 1983, 1986). A discourse topic is claimed to be in sentence form; more precisely, it is a proposition which expresses "the most important fact(s) of the story" (Van Dijk, 1981, p. 187) or expresses "a concern (or a set of concerns) the speaker is addressing" (Keenan and Schieffelin, 1976, p. 343).

Although the notions of metatopic and discourse topic involve some of the characteristics of "issue," they are not exactly the same as the notion of issue. In particular, the notion of discourse topic, being defined as a proposition, lacks one of the most important characteristics of "issue," that is, that an issue is an evaluation and not merely a statement. The notion of proposition was described by Van Dijk (1977) as follows:

In linguistics, the meaning of a declarative sentence is often called a proposition.
Sometimes the term STATEMENT is also used. In the semantics of (propositional) logical systems, a proposition is simply defined as an object which is assigned a TRUTH-VALUE. (p. 21)

According to this description, a discourse topic is a sentence (statement) but it is a declarative one rather than an evaluational one. If the objective of conversation is to acquire information, then what is communicated in a conversation must be a proposition. In this sense, Van Dijk's (1981) claim, that a topic of a discourse is a declarative sentence about the most important fact in the discourse, is sound and consistent.

However, to acquire information is not the only objective of having conversation. For instance, in their research Kellermann et al. (1989) found that even strangers in an initial interaction continued a conversation after acquiring information and eventually made an evaluation. As an example, when asked to list possible verbal actions in initial interactions between strangers, participants reported that a part of a conversation opened by the question "Do you know person X?" leads to evaluations of person X, such as "Isn't X a nice person?". This observation indicates that conversants engage in conversation not only to acquire information but also to make an evaluation.

After reviewing a number of classifications of the functions of language, Halliday (1989b) proposed to
classify the functions of language into three groups. These are (1) informative use, (2) interactive use, and (3) imaginative use. According to Halliday (1989b), informative use is "for talking about things (informative-narrative-representational)" (p. 16), and it is thus content-oriented. Interactive use was characterized as a language use "for 'me and you' purposes, expressing the self and influencing others (mood-expressive-conative-active)" (p. 16), and it was considered to be effect-oriented. The third use, imaginative use, was characterized as an imaginative or aesthetic function. According to Halliday (1989b), greetings and poetry are in this category.

Two functions of conversation are claimed in this thesis, that is, acquiring information and presenting judgments. These two functions correspond to two of Halliday's three functions of language, respectively "informative use" and "interactive use."

Furthermore, this thesis claims that presenting one's judgment is not only one of the two functions of language, but is the primary objective of having a conversation.
Murray's Account

Murray (1983), one of the few scholars who use the term "issue," emphasized the importance of the notion of issue in the understanding of conversation. Defining an issue as something arguable, Murray (1983) stated that "issues are a species of interest to which more conversation is addressed than at first appears" (p. 1). In particular, issues were considered to contribute to the common interest of conversants, that is, to the increase of shared knowledge. Thus, according to Murray (1983), discussing an issue is one way to achieve one of the objectives of having conversations.

Murray (1983) argued that the reason for having a conversation is "repairing perceived gaps in mutual knowledge" (p. 1), which are caused by a conversant's ignorance or uncertainty about the knowledge shared with his/her conversation partners. Two situations are claimed to cause perceived gaps in conversants' shared knowledge.

One situation is when a gap arises from a lack of information. In this situation, a conversant has to ask a question to gain the necessary information. According to Murray (1983), "questions and answers impose the obligation to contribute new information" (p. 1); thus, answering questions (supplying information) is one of the
ways "to increase the mutually reliable relevant background" (p. 3).

The other situation in which a gap arises is when alternative views exist on a certain matter in conversants' shared knowledge. A matter on which conversants may have alternative views, and is thus arguable, is called an issue by Murray (1983). Murray (1983) claimed that an issue is a proposition and can be brought into a conversation as a speaker's assertion:

Assertions modified by "I think", "I would say", "it seems to me", etc., are expressly put forward as opinion, suggestion, rather than as 'hard fact'. As such, the proposition within the intensional scope is explicitly open to argument. (p. 3)

According to Murray (1983), in this situation, a conversant has to discuss an issue until all possible alternatives are eliminated, after which the issue is considered to be resolved.

Murray (1983) argued that in both situations the discourse leads to changes in shared knowledge, and specifically to the elimination of gaps. According to Murray (1983), because the reason for having a conversation is to repair a gap in shared knowledge, once the gap is repaired there is no need for further exchanges on the same matter. "If a question has been answered, or an issue resolved, further information (new or not)
relevant only to that question or issue cannot be relevantly stated" (Murray, 1983, p. 1).

However, although Murray (1983) proposed that bringing a question or an issue into a conversation can fill gaps in shared knowledge, she failed to make a clear distinction between a question and an issue. Stating that "an issue may be voiced as a disputable assertion or question," Murray (1983) implied that a question is one of the forms of issue. In fact, most of the issues given as examples by Murray (1983) were in question form. For instance, the following questions were given as examples of issues introduced by one speaker, B, during a ninety-minute tape-recorded conversation in which three friends talked about their mutual friend T's marriage problem:

Should B [a speaker] make the trip?
Could B, by going, forestall the threatened collapse of T's marriage?
Is T's marriage already beyond repair?
Is it true that T and his wife have had no sex for years?
Is it true that T is demented, irrational?.
Is it true that T has manifest irrational behavior? (Murray, 1983, pp. 12-13)

Strictly speaking, because Murray (1983) defined an issue as an arguable proposition, considering these questions as issues is contradictory. By her definition, issues must be propositions such as the following:
B should make the trip.

B could, by going, forestall the threatened collapse of T's marriage.

T's marriage is already beyond repair.

T and his wife have had no sex for years.

T is demented, irrational.

T has manifest irrational behavior.

However, Murray (1983) treated propositions and questions about their truth value as interchangeable. This problem seems to arise from the lack of an exact definition of what "arguable" means in her theory. In other words, Murray (1983) did not make a clear distinction between propositions and their arguability. For instance, it is not clear why the proposition "T's marriage is already beyond repair" is phrased as a simple question, while another proposition "T is demented, irrational" is phrased as a question which asks the truth value of the proposition. If the point of having an argument about a certain matter is, as Murray (1983) claimed, to reach agreement, why do some propositions have a truth value attached to them? Also, what is arguable is different in the question whether or not B should make the trip and in the question whether or not T and his wife have had no sex for years.

In fact, Murray (1983) suggested at least three different types of arguable proposition:
Some issues, such as whether or not a door is locked, can be unambiguously resolved at once. But some can never be resolved absolutely, placed beyond doubt for all time: all 'value judgments' are of this sort. And some issues, such as any suggestions about the future, can only be resolved after some time has passed, not in the here-and-now of a current discourse. (pp. 3-4)

Some of the issues mentioned here are not considered as issues in this thesis; moreover, some of the issues have characteristics which contradict with Murray's (1983) own definition of issue.

The first type of issue mentioned here (e.g., "Whether or not the door is locked") involves a declarative proposition which concerns a "hard fact" (that is, either "The door is locked" or "The door is not locked"). If, as Murray (1983) claimed, the gap in the shared knowledge in this case can be filled at once by answering the question about the hard fact, by her definition this type of question is not an issue.

Another example of the first type of issue given by Murray (1983), "Is it true that T and his wife have had no sex for years?", also falls into this category. Murray (1983) argued that because the three speakers have no way of knowing the facts about T's intimate private life, the proposition which the speaker asserted, "T and his wife have had no sex for years," is arguable. Yet Murray (1983) suggested that what is arguable is the truth value
of this proposition. Because there is no way to confirm the fact, what is arguable can not be the truth value of the proposition, but rather the rightness or appropriateness of such an opinion. As opposed to Murray (1983), in this thesis it is claimed that conversations function to evaluate the rightness of one's judgment, not to evaluate the truth value of a proposition.

The second type of issue suggested by Murray (1983) is a "value judgment." Unlike the first type of issue, Murray's (1983) second type, being a value judgment, is similar to the notion of "issue" in this thesis, which is defined as an evaluational statement. In contrast to the "hard facts" oriented propositions, value judgments depend almost entirely on the social norm shared by the members of a community. One of Murray's (1983) issues, "Should B [a speaker] make the trip?", is of this type, because the statement made by speaker B is an evaluational one (that is, it involves a value judgment) about making a trip, such as "It is (it is not) worth while to make the trip."

Assertions such as "T is demented, irrational" are also considered as evaluational statements in this thesis. Although Murray (1983), again, suggested that what is arguable about this assertion is its truth value, the criteria for judging whether some one is demented or
irrational differ from individual to individual and from community to community. Thus, it is meaningless to consider whether such a statement is true or not; rather, conversants consider the rightness or appropriateness of the evaluation made by one person about another person.

According to Murray (1983), the third type of issue concerns the future. An issue given by Murray (1983), "Could B [a speaker], by going, forestall the threatened collapse of T's marriage?" is one of the examples of this type. As Murray (1983) argued, whether or not speaker B's trip can save T's marriage is unknown to conversants at the time of the conversation; therefore, this matter is arguable. However, it can be assumed that when this so-called issue was brought into a conversation, the speaker already had his/her own answer for this question. According to Murray (1983), this issue was implied by B's remark "I don't think it'll make any differences if I go." It is clear that before making the remark B had already made a judgment about the possibility that the trip would save T's marriage. In this case, B's judgment was that the trip would not save T's marriage. The question raised in this conversation by B's remark is not whether his/her trip can save T's marriage, but whether or not B's judgment is appropriate.
However, despite these problems and differences, Murray's (1983) view of conversation and her notion of issue share some assumptions with this thesis. Most importantly, Murray (1983) emphasized that shared knowledge involves not only hard facts but also social norms whose legitimacies are valid only within the community.

The point of argument is (or ought to be) to bring round, make of one mind, agree. Then what is agreed, the common judgement, can be treated as given in any further exchanges between members of that community of interest, even when it cannot be counted on in other communities. (p. 4)

Consequently, Murray (1983) basically assumed that an issue is not a declarative proposition (statement) but an arguable one. In particular, Murray (1983) considered "value judgments" as a type of issue. Although Murray (1983), in some cases, associated true-false values with propositions, her notion of proposition is different from that of Van Dijk (1977, 1981, 1985), who considered propositions to be declarative. Finally, Murray (1983) claimed that "an issue may be voiced as a disputable assertion or question, or it may never be explicitly expressed at-all" (p. 4). This thesis also argues that an issue can be implicitly presented in a conversation.
Reichman's Account

Reichman (1978, 1984a, 1984b) is another of the few scholars who used the term issue in the study of conversation. As reviewed in the previous section, in her early study, Reichman (1978) claimed that a conversation is structured by groups of utterances, called context spaces, each of which refers to a single issue or episode. Reichman (1978) at first treated equally groups of utterances concerning a general issue and ones concerning an episode. But in later work, Reichman (1984a) claimed that a group of utterances which concerns an issue is "a major non-dependent constituent in a discourse" (p. 166) "in light of which all subordinate context spaces [groups of utterances] are generated and interpreted" (p. 174). In other words, the function of other (non-issue) groups of utterances, including ones concerning episodes, was considered to be secondary to ones concerning issues. Along with the changes in which the prominence of issues was more emphasized, Reichman (1984a) revised her view about the form of issues. Reichman (1978) initially considered an issue to be a noun phrase, but in her later study an issue was considered to be in sentence form.

Moreover, like Murray (1983) who claimed that an issue is an arguable proposition and is expressed as an assertion, Reichman (1984a) argued that groups of
utterances which concern an issue "generally contain assertions that a given state-of-affairs is true or false, good or bad, possible or not possible, and so on" (p. 166). According to Reichman (1984a), through a conversation, an assertion with such a modifier as true, false, good, bad, possible or not possible, is supported or challenged, and the contingency factors of the assertion are discussed.

Whereas Murray (1983) failed to make a clear distinction between propositions and their arguability, Reichman (1984a) proposed that what an issue claims can be separated into two parts: a proposition and "a modality of the proposition (true, not true; good, bad; etc)" (p. 174). Reichman (1984a) claimed there are three types of modality and thus three types of issue: epistemic, evaluative, and deontic.

An epistemic issue assesses the truth or necessity of a particular proposition. The following conversation segment was given by Reichman (1984a) as one that contains an epistemic issue:

R: Except however, John and I just saw this two hour TV show

M: Uh hum,

R: where they showed - it was an excellent French TV documentary - and they showed that, in fact, the aggressive nature of the child is not really that much influenced by his environment. (p. 169)
According to Reichman (1984a), the proposition here is "the aggressive nature of the child is influenced by his environment," and the modality given to this proposition is "not true."

An evaluative issue claims the goodness/badness of a given proposition. According to Reichman (1984a), the type of predicate associated with the claim consists of two parts, "a particular evaluative adjective and a corresponding positive or negative measure. For example, (crazy, negative) is a possible value" (p. 175). This type of issue is closest to the notion of issue in this thesis. Defining an issue as an evaluational statement and claiming that the objective of having conversation is to evaluate the rightness of evaluational statements, this thesis mainly deals with what Reichman (1984a) called evaluative issues. Conversational messages claimed to be issues in this thesis, such as "He is a rude person," falls into this category.

The last type of issue, a deonitic issue, questions the appropriateness or fairness of a given proposition. According to Reichman (1984a), possible predicates associated with this type of issue are "Why should (X be the case)?" and "Why should not (X be the case)?". Although Reichman (1984a) did not particularly mention it, many issues which involve statements
(propositions) regarding future events can be deontic. For instance, both of the following messages concern future events (one is claimed to be an issue in this thesis and the other one is from Murray's (1983) examples):

I am going to wear a red dress at the wedding party.

Could B, by going, forestall the threatened collapse of T's marriage? (Murray, 1983, p. 11)

The modality attached to these messages is not true/false, nor do they involve an evaluative adjective associated with positive or negative value.

While classifying issues into three types, Reichman (1984a) presented common characteristics of all three types. First, all three types of issue can be either implicit, and thus inferred, or explicitly stated by the speaker. Second, any of these three types of issue can be subdivided into debative or non-debative issues. Reichman (1984a) then claimed that non-debative issues are "ordinary."

The above account shows a distinct contrast with Murray's (1983) view of issue. That is, while Murray's (1983) definition of issue proposed that all issues are arguable, Reichman's (1984a) claim implied that issues are primarily non-debative, not merely that issues are not necessarily debative. However, no matter whether an introduced issue was debated or not, it can be assumed
that a conversant who introduced the issue expects to be either supported or challenged. Otherwise, there is no need to bring the issue into a conversation. Every issue, at the time it is introduced into a conversation, must be potentially debative, because, as Murray (1983) stated, "as long as there are possible alternatives, no one possibility can be relied upon" (p. 3). This thesis, in agreement with Murray's (1983) view, claims that people have conversations to confirm the rightness of a judgment about things (an issue); this thesis considers that an issue does not just happen to be debatable, but rather a debatable statement is intentionally presented in a conversation as an issue.

Another difference between Murray (1983) and Reichman (1984a) is that Reichman (1984a) considered other entities, such as "topic" and "focused item," while Murray (1983) did not mention any entity other than issue. It is claimed in this thesis that a topic is an object of evaluation expressed as an issue, and thus an issue (an evaluational statement) involves a topic as a left-most noun phrase. Therefore, the notion of topic must be considered in the study of issue. In this sense Reichman's (1984a) notion of issue is more comprehensive than Murray's (1983).
However, while using the same term, what Reichman (1984a) denoted by the term "topic" is different from "topic" in this thesis; rather, "focused item" is closer to the notion of topic. In her earlier study, Reichman (1978) treated an issue and a topic as equivalent, i.e., a noun phrase expressing a speaker's main concern. Although she revised this view in her later study and considered a topic as a noun phrase and an issue as a sentence, Reichman's (1984a) topics are not much different from issues. For instance, Reichman (1984a) claimed that in a conversation where the issue is "The aggressive nature of the child is influenced by his environment," a topic is "the influence of the environment on a child's behavior." She has consistently defined "focused item" as individual items mentioned in a group of utterances. Reichman (1978, 1984a) argued that each item is assigned high, medium, low or zero focus by a speaker. Reichman (1984a) claimed that "aggressive nature of the child" is the high-focus item in the above example. Although Reichman (1984a) did not give any explanation for it, this high-focus item is indeed the left-most noun phrase of the issue statement.

Nevertheless, in spite of some differences, the notions of issue proposed by Murray (1983) and Reichman (1984a) are similar in many ways. The fact that Murray (1983) and Reichman (1984a) reached quite similar concepts
through different approaches in studying conversations suggests that the notion of issue, an arguable or debatable proposition, is a valid concept. Furthermore, Tracy (1982) demonstrated the psychological reality of "issue." Tracy (1982), as reviewed earlier, conducted an experiment based on Reichman's (1978) notion of issue and found that participants could identify issues among other types of proposition.

Summary

Although both Murray (1983) and Reichman (1984a) emphasized the importance of the notion of issue in understanding conversation, there are not many empirical studies which deal with this notion (Tracy's (1982) experiment is one of the few). Thus, it is necessary to examine the validity of these proposed definitions of issue through an empirical study. Furthermore, because two entities, topic and issue, coexist and play important roles in a conversation, both entities must be studied together. As reviewed earlier, previous studies of topic overlooked the notion of issue, and the notion of topic was neglected in previous studies of issue. The aim of this thesis is to examine the psychological reality of the concept of "issue" and "topic" and the validity of the
Conversational Satisfaction as a Measurement

This thesis proposes that because presenting an "issue" is one of the main objectives of having a conversation, a conversation with an "issue" will be favored. The validity of this claim will be empirically tested in this study. In the empirical test, conversational satisfaction is used as a measurement of the participants' preference on the conversation with an "issue." Using this measurement, i.e., conversation satisfaction, the following is hypothesized: participants will evaluate conversations which include an "issue" as more satisfactory than ones which do not include an "issue."

Therefore, while this section briefly reviews the literatures of some studies of conversational satisfaction, the following two points have to be made clear. First, conversational satisfaction is not the main concern of this study; instead, it is merely one of the measurements. In particular, conversational satisfaction
is treated as a measurement of the preference of conversation.

Second, although the satisfaction derived from a conversation may involve other factors, such as the importance of an "issue," the outcome of a conversation, and the relationship between the conversants, the satisfaction considered in this thesis is limited strictly to whether or not an "issue" is presented and discussed in a conversation. It is assumed that this satisfaction is independent of those other factors.

Some Studies of Conversational Satisfaction

Since the late 1960s, in the field of communication study, several studies about individual's communication satisfaction have been conducted in organizational settings (Downs & Hazen, 1977; Downs & Pickett, 1977; Crino & White, 1981) and in interpersonal settings (Hecht, 1978b; Hecht, Sereno, & Spitzberg, 1984). Hecht (1978a) classified existing theories of satisfaction into five categories; need gratification, expectation fulfillment, equivocality reduction, constraint-reinforcement, and Herzbergs's two-factor theory. After reviewing these theories, Hecht (1978a) claimed that "communication satisfaction is an internal behavior" (p. 54), which is caused by individuals' assessment of
communication "in terms of expected or anticipated behavior" (p. 48). In his study of interpersonal communication, Hecht (1978b; Hecht et al., 1984) used the term "conversation satisfaction" referring to individual's satisfaction in interpersonal communication. Hecht et al. (1984) defined conversation satisfaction as "the positive emotion we feel after successful and fulfilling communicative interactions" (p. 376). In other words, "if positive expectations are fulfilled, satisfaction results" (Hecht, 1978b, p. 254).

While Hecht (1978b; Hecht et al. 1984) assumed that conversants have expectations about conversations, this thesis claims that conversants have objectives for engaging in a conversation. Thus, conversational satisfaction is defined in this thesis as a positive evaluation of a conversation in terms of the accomplishment of its objective. Arguing that one of the main objectives of a conversation is to evaluate the rightness of an "issue," one's own judgment about things, this thesis assumes that a conversation in which an "issue" is presented and discussed will be perceived as more satisfactory than one without an "issue." However, to present an "issue" is not the only objective of having a conversation. Rather, as Tracy (1982) stated that "conversants usually have multiple goals" (p. 323), a
conversation involves a several expectations, goals, or objectives involved in a conversation.

It has been suggested in previous studies that multiple factors are involved in making communication successful and fulfilling, and therefore satisfactory. Various factors, such as the outcomes of communication, the situations in which communication takes place, and interpersonal relationships among the participants are considered to determine the communication satisfaction of individuals.

For instance, Crino and White (1981), in their study of communication satisfaction in the workplace, stated that "communication satisfaction is defined as an individual's satisfaction with various aspects of communication in his organization" (pp. 831-832). According to Crino and White (1981), this claim was based on the theories of Downs, Hazen, and Quiggins (1973) who suggested that an individual's communication satisfaction is "a multi-dimensional construct which characterizes different organizational variables, e.g., task, feedback, work-group relations" (Crino & White, 1981, p. 832). For instance, Downs and Pickett (1977) suggested six dimensions of an individual's satisfaction in the workplace: (1) group leader, (2) the individual's own involvement in decision making, (3) work structure, (4)
the way the work is done, (5) relationships with co-workers, and (6) other group members' contributions to the work effort.

While these various factors are claimed to contribute to communication satisfaction, it is claimed in this thesis that an individual also can feel satisfaction about a conversation simply because he/she could present an issue in the conversation. However, this type of satisfaction has been neglected in previous studies of conversational satisfaction. Previous studies (Hecht et al., 1984; Tracy, 1983) attribute conversational satisfaction to the importance of the topic and to interpersonal relationships among the conversants.

For instance, Hecht (1978b) emphasized interpersonal aspects of conversational satisfaction and developed his Interpersonal Communication Satisfaction Inventory. In contrast to Downs and Pickett (1977) and Crino and White (1981), who claimed that communication satisfaction is multi-dimensional, Hecht (1978b) suggested that conversation satisfaction is uni-dimensional. Hecht (1978b) conducted surveys and experiments to isolate conversational situations in which conversants felt satisfaction or dissatisfaction. Sixteen descriptions were found to be common in different experimental conditions, such as actual or recalled conversations and
conversations between friends, acquaintances, or strangers. These sixteen descriptions of conversational situations and three additional ones were used as items in Hecht's Interpersonal Communication Satisfaction Inventory (see Table 1). Hecht (1978b) then performed a factor analysis for these 19 items to examine their dimensionality. Hecht (1978b) reported that although three factors were found, the second and third factors account for quite a small percentage of the total variance. The first factor was labeled by Hecht (1978) "general affect/morale" and was associated with overall satisfaction. Therefore, he concluded that conversation satisfaction is uni-dimensional.

However, in a later study, Hecht et al. (1984) proposed that several factors are involved in the satisfaction derived from interpersonal communication. Two primary factors were suggested: "the nature of the topics being discussed and the nature of the relationship between communicators" (p. 377). Hecht et al. (1984) claimed that the nature of the topics and the nature of the relationships among communicators are interdependent:

As the topic becomes more important or intimate, the other person gains significance as an object of focus, and persons' feelings about the conversation should be more closely related to their feelings toward the other. A topic that is very important to one's self makes the satisfying management of the discourse a more valued task, and this management is, in turn,
Hecht et al. (1984) claimed that because of this interdependence, the other person becomes more important as a source of communication satisfaction when an important topic is discussed in a conversation, especially when that person supports a topic. Although Hecht et al. (1984) did not clarify the term topic, it seems to be used to denote both "topic" and "issue" of this thesis. Thus, in the claim of Hecht et al. (1984) that a speaker will be satisfied when an important topic is supported by a listener, the phrase "topic is supported" can be interpreted as "issue is discussed and agreed on."

Tracy (1983) also claimed a correlation between the importance of the topic and the interpersonal relationships among conversants. Although Tracy (1983) did not use the term satisfaction, she argued that one of the goals of conversation is to create positive relationships. Tracy (1983) stated that "in general, conversants strive to create positive relationships" (p. 323), and in doing so conversants are attentive to their partner while expecting the same treatment for themselves. Thus, Tracy (1983) claimed that it is desirable to be attentive to the topic (issue) brought up by a partner, i.e., not to change the topic and to continue a conversation on an issue. However, according to Tracy
(1983), this principle is dependent on the importance of the topic. She argued that the more important a message (an issue) is to a speaker, the less desirable it is to change the topic. In other words, when a topic is not important to a speaker, it is not as threatening to change the topic as when a speaker is highly involved in it.

However, while emphasizing the importance of the nature of topic (issue) and the nature of interpersonal relationships as sources of conversational satisfaction, the above studies failed to consider the primary objective of a conversation; that is, an issue has to be presented. Although she did not give much consideration to it, Tracy (1983) claimed that the minimal goal of conversants is "to tell another what he or she is thinking and doing" (p. 323).

This thesis claims that a conversant, having the primary objective of presenting an "issue," would have primary satisfaction when he/she presents an "issue" and when the issue is acknowledged by the partner. Furthermore, this satisfaction is considered to be independent of other factors, such as the nature of the topic (issue), interpersonal relationships, and the outcome of the discussion. In other words, regardless of whom one has a conversation with, what one talks about, and whether or not the rightness of an "issue" is
confirmed, one can be satisfied by a conversation as long as one can present an "issue" and as long as the "issue" is discussed.

The following items in Hecht's (1978b) Interpersonal Communication Satisfaction Inventory suggest that to express one's own idea satisfy conversants;

- The other person showed me that he/she understood what I said.
- We each got to say what we wanted.
- We talked about something I was NOT interested in. (p. 259) (The last item was given a negative score in the inventory.)

These descriptions do not specify whether or not one's idea (issue) was supported. In addition, according to Hecht (1978), these items were commonly reported or observed in conversations between friends, acquaintances, and strangers. Thus, these items imply that presenting one's idea (issue) gives conversants satisfaction regardless of the outcomes of conversations and of the relationships between conversants, although Hecht's (1978) factor analysis revealed that these items contribute little to the overall satisfaction.

By comparing conversation segments which involve an issue and ones which do not involve an issue, the existence of this type of conversational satisfaction will be examined in this thesis.
Summary

It is claimed in this thesis that a conversation with an "issue" will be favored because to have an "issue" is one of the main objectives of having a conversation. This claim leads to an assumption that a conversation with an "issue" will be perceived as satisfactory. Thus, conversational satisfaction can be used as one of the measurements of the conversants' preference over conversations with an "issue." In order to do so, the source of conversational satisfaction is considered to be limited strictly to whether or not an "issue" is presented and discussed in a conversation.

In other words, although the satisfaction derived from a conversation may involve other factors, such as the importance of an "issue," the outcome of a conversation, and the relationship between the conversants as introduced in this section, it is assumed that this satisfaction is independent of those other factors.

However, in turn, by comparing conversation segments which involve an issue and ones which do not involve an issue the above assumption, i.e., existence of a type of conversational satisfaction which purely depending on the presence of an "issue," will be also examined in this thesis through an empirical test.
Chapter 3

METHODOLOGY

To test the hypotheses, an experiment was conducted. In the experiment, participants were asked to read conversational segments, to identify the topic and the issue of the conversational segments, and to answer questions about conversational satisfaction and the difficulty of topic and issue identification.

Participants' responses were, then, analyzed to examine the following eight hypotheses:

Hypothesis 1: When participants are asked to identify a "topic" and an "issue" in a given conversation, they are able to provide two different types of response.

Hypothesis 2: When participants are asked to identify a "topic" in a given conversation, they will provide a definite noun or a noun phrase as the response.

Hypothesis 3: Even though an "issue" is not stated explicitly in a given conversation, as long as there is an "issue," participants can identify it.

Hypothesis 4: If a given conversation does not have an "issue," participants can identify the conversation as a "non-issue" one.

Hypothesis 5: When participants are asked to identify an "issue" in a given conversation, as long as there is one, either explicit or implicit, participants will provide a sentence as the response.
Hypothesis 6: The sentence provided by participants as an "issue" will have a "topic" as a grammatical subject.

Hypothesis 7: The response provided as an "issue" by participants will be an evaluational statement.

Hypothesis 8: Participants will evaluate given conversations which include an "issue" as more satisfactory than ones which do not include an "issue."

**Subjects**

All participants in this study were undergraduate students from communication classes at the University of Delaware. For their participation, the students received extra credit for the class. Besides these students, three faculty members of the Communication Department took part in this study as independent judges to assess the appropriateness of materials during the material selection procedure.

**Materials**

Three sets of three short conversational segments (nine conversational segments in total) were used in the experiment. The three conversational segments in each set were three variations of each other modified by the researcher to represent three issue types: an explicit issue, implicit issue, and no issue.
Original Conversations

The original conversations were collected for another study and transcribed. As a part of their class assignment, undergraduate students in one of the introductory interpersonal communication classes participated in the study and conducted conversations. Each student was matched with a same-sex student with whom he/she was not previously acquainted and the students were asked to have seven conversation sessions with their partners. Among the seven, five sessions of conversation were tape recorded and two were video taped.

For five tape recorded conversation sessions, the students were instructed to converse for 30 min. about anything they wanted to talk about and were asked to tape record the conversation by themselves. The two video taped conversation sessions took place in a laboratory room in the Communication Department. In each video taped session, students were given a problem solving task and their performance was video taped. The lengths of video taped sessions varied among dyads and from session to session; they ranged from 20 min. to 45 min.

The tape recorded conversations were then transcribed by trained undergraduate students. Transcribing of video taped conversations was still in process at the time of this study. Thus, only tape
recorded conversations were used as sources from which conversational segments were isolated. In particular, transcriptions from several dyads' second and third conversation sessions, which were held three or four weeks after dyads had first become acquainted, were reviewed by the researcher.

Although the original conversations were available in video taped, tape recorded and transcript form, only the transcripts were used in this study. The difference in form was reported to have effects on the perceived competence of conversants and the perceived effectiveness of conversational messages (Bradac, Konsky, & Davies, 1976); however, Planalp and Tracy (1980) found that participants' identification of topic changes was not affected by the form of the message (tape recording or transcript). As a result of this finding, Tracy (1982, 1983, 1984a, 1984b) used transcripts in her studies of topic (issue) identification and continuation. Because the primary purpose of this study was to examine whether participants can identify a topic and an issue as separate entities in a conversational message, the use of transcripts was assumed to be adequate for this study.
Isolation of Conversational Segments

Three sets of three short conversation segments used in the experiment were obtained from these conversation transcripts through the following three-stage procedure.

In the first stage, nine short segments were isolated and each of the nine was modified into three versions. From the original conversation transcripts, short segments which involve a topic and either an explicit or an implicit issue, or which involve a topic but not an issue were isolated by the researcher. Through this isolation procedure, short segments whose topics are situation-oriented (such as a dog barking nearby at the time of the conversation) or are personal (such as a common friend of the conversants, referred to by a proper name) were avoided.

Conversational segments were isolated to have approximately the same length and to involve approximately the same number of exchanges. Also, an attempt was made to approximately equalize the length of time for which each conversant spoke.

Then, each conversational segment selected by the above procedure was modified by the researcher to have an explicit issue, an implicit issue or no issue. However, to maximize the naturalness of the conversational
segments, if the original conversational segment was of one of these types, it was used without modification. Then two versions were made to fit in the other two types. Nine sets of conversational segments (each set involving a topic different from each other) were obtained by this procedure.

Although the conversational segments were originally from real conversations, because they were isolated from much longer conversation and modified by the researcher, it was necessary to examine whether the modified conversations resembled naturally occurring conversation and were understandable. Thus, naturalness of these conversational segments was tested in the second stage of the procedure.

It has also been reported that the identification of topic and issue and the perception of conversational satisfaction are affected by the nature of the topic, the relationship between the conversants, and the difficulty of conversation (Tracy, 1983; Hecht, Sereno, & Spitzberg, 1984). Thus, although this thesis claims the existence of conversational satisfaction caused by the presence of an issue regardless of the conversants' relationships or the nature of the topic, it was necessary to control these factors.
Of these three factors, the conversants' relationship could be assumed to have already been controlled by the procedure in which the original conversations were obtained. That is to say, the intimacy of the conversants was similar among dyads because the members of each dyad were not previously acquainted; they were matched at the beginning of the semester, and the conversation sessions used in this study were held within four weeks.

To avoid the influence of the nature of the topic, multiple conversational segments, each of which involves a different topic, were given to each participant in the experiment.

The third factor, the difficulty of conversation, was tested in the next stage along with the naturalness of the conversational segments.

**Naturalness of Conversational Segments**

The second stage of the material selection procedure enabled the researcher to discard four sets of conversational segments out of the original nine sets. The criteria for this selection were the difficulty and the naturalness of conversational segments.

Thirty undergraduate students from one of the communication classes participated in this stage to judge
the difficulty and the naturalness of conversational segments. The students received a consent form, instructions, and nine conversational segments, each of which was followed by a questionnaire (see appendix A). All students were asked to fill in the consent form provided prior to their participation and were given extra credit for their participation.

While the nine conversational segments, one from each of the nine sets of conversational segments, were given to each subject, the issue types and the order of the conversational segments were randomized within subjects. Therefore, the order of the nine topics and the three issue types were randomized among the subjects. The questionnaires consisted of five items: two items concerned the difficulty and the other three concerned the naturalness of the conversational segments. Students were asked, after reading each conversational segment, to answer the extent to which they agreed or disagreed with the items on a seven-point Likert scale.

When any of three conversational segments were judged to be difficult to understand and to be unnatural, in other words, achieving an average score above midpoint (4.0), a whole set was discarded. As a result four sets of conversational segments were discarded.
Validity of Three Issue Types

In the last stage of the material selection procedure, the validity of topic and issue and whether three conversational segments in a set adequately represented the three issue types were examined. Because the topic and the issue of the conversational segments were identified or inserted by the researcher, it was necessary to demonstrate that the topic and issue were valid. In order to examine the researcher's judgment about topic and issue, three judges, faculty members of the Communication Department, were asked to evaluate five sets of conversational segments. Three judges independently sorted the five sets of conversational segments into a rank order according to how well three conversational segments in each set represented three issue types.

Three sets of conversational segments (nine conversational segments in total) used in the experiments were chosen from the five sets based on the students' evaluations and the rank order given by the judges. However, when the rank orders of the five sets of conversational segments given by three judges were not in agreement with each other or when there was a conflict or ambiguity among those measures, the final judgment was made based on the students' evaluation. In other words,
in those cases the ones which were evaluated more natural and less difficult were chosen over the others. The three sets of conversational segments are attached in Appendix B.

One set of conversational segments was regarding "teacher and his/her way of teaching" (Teacher Conversation) and another one was regarding "Division of Motor Vehicle and people in there" (Motor Vehicle Conversation). In the last set of conversational segments, students talking about "the security system of dormitory entrance" (Dormitory Conversation).

Demographic Feature of Materials

Among the three sets of conversational segments, one was isolated from the conversation of one of the male dyads, the other two were isolated from the conversations of one of the female dyads.

Teacher Conversation was originally isolated from the transcript of the third tape recorded conversation session of a dyad which consisted of a 19-year-old male student and a 21-year-old male student. The original conversational segment involved an issue statement, "The teacher can make or break courses, that's for sure," and used as the explicit issue version without modification. This original segment was modified by the researcher to
make the other two issue type versions, the implicit issue version and the no issue version.

Motor Vehicle Conversation was originally isolated from the transcript of the third tape recorded conversation session of another dyad which consisted of a 21-year-old female student and a 22-year-old female student. The original segment involved an issue statement, "People hanging in the Motor Vehicle are sleazy," thus it was used as the explicit issue version; then, the other two version were modified from this one.

The very same dyad's second tape recorded conversation was the original source of Dormitory Conversation. The original conversational segments did not involve an issue statement, but implicitly made a statement that, "Dormitories are not that safe." Thus the original one was used as the implicit issue version, and the issue statement was added to make the explicit issue version. It was also modified not to have any issue statement for the no issue version.

Questionnaire

In the experiment, participants were asked to fill in a questionnaire regarding the conversational segments and topic and issue identification. The questionnaire consisted of two sections. In the first section open-
ended free format space was given to the subjects for their identification of the topic and the issue. The second section of the questionnaire consisted of seventeen closed-ended items (each with seven-point Likert scales) about the conversational segments they had just read. Those statements were designed to survey students' opinions about the difficulty in topic identification (three items), about the difficulty in issue identification (three items) and about conversational satisfaction (eleven items). Items about conversational satisfaction were derived from Hecht's (1978b) Interpersonal Communication Satisfaction Inventory. From Hecht's original nineteen items, ones judged to be more conversation oriented by the researcher were chosen for this study. Items about difficulty of topic and issue identification were generated by the researcher (Table 3.1). The items concerning the difficulty in topic and issue identification and the ones concerning conversational satisfaction were mixed, and the order of statements was randomized among the students.
Table 3.1 Items in the Questionnaire

<table>
<thead>
<tr>
<th>Difficulty in Identifying a Topic</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>* It is difficult to find what the topic of the conversation is.</td>
<td></td>
</tr>
<tr>
<td>It is easy to identify what this conversation is about.</td>
<td></td>
</tr>
<tr>
<td>The topic of the conversation is clear.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Difficulty in Identifying a Issue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>* It is difficult to find what the issue of the conversation is.</td>
<td></td>
</tr>
<tr>
<td>It is easy to understand what the conversants wanted to say.</td>
<td></td>
</tr>
<tr>
<td>The issue of the conversation is clear.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conversational Satisfaction</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>* This conversation is satisfactory.</td>
<td></td>
</tr>
<tr>
<td>* Both conversants got to say what they wanted.</td>
<td></td>
</tr>
<tr>
<td>The conversants frequently said things which added little to the conversation.</td>
<td></td>
</tr>
<tr>
<td>* The conversants enjoyed the conversation.</td>
<td></td>
</tr>
<tr>
<td>* The conversants showed that each understood what the other said.</td>
<td></td>
</tr>
<tr>
<td>Nothing was accomplished in this conversation.</td>
<td></td>
</tr>
<tr>
<td>* I would like to have a conversation like this one.</td>
<td></td>
</tr>
<tr>
<td>Neither of the conversants provided support for what he/she was saying.</td>
<td></td>
</tr>
<tr>
<td>* The conversants are satisfied by the conversation.</td>
<td></td>
</tr>
<tr>
<td>* The conversants each expressed a lot of interest in what the other had to say.</td>
<td></td>
</tr>
<tr>
<td>* The conversation flowed smoothly.</td>
<td></td>
</tr>
</tbody>
</table>

Note: * indicates that for those items, given responses' seven-point scale scores were inverted.
Procedure of the Experiment

Prior to their participation, the subjects were informed that this study was to investigate their reaction to conversational segments, that their identities would be kept anonymous by the researcher, and that they were free to discontinue the experiment any time before the end. Each student received a packet of materials consisting of instructions for the experiment, a consent form, and the three conversational segments, each followed by the questionnaire (see Appendix C) and was asked to fill in the consent form provided before he/she started answering the questionnaire. The consent form was collected by the researcher later on and kept separately from the questionnaire in order to maintain anonymity of participants. (The same treatment was exercised for the participants of the material selection procedure.)

The students were randomly assigned to one of three groups. Each group received a different set of three of the nine conversational segments, one for each of three conversation segments (Teacher Conversation, Motor Vehicle Conversation, and Dormitory Conversation) and one for each of three issue types (the explicit issue type, the implicit issue type, and the no issue type). Table 3.2 presents three groups' assignments of conversational segments.
### Table 3.2 Assignments of Conversational Segments

<table>
<thead>
<tr>
<th>Issue Types</th>
<th>Explicit Issue</th>
<th>Implicit Issue</th>
<th>No Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher Conversation</td>
<td>Group 1</td>
<td>Group 2</td>
<td>Group 3</td>
</tr>
<tr>
<td>Motor Vehicle Conversation</td>
<td>Group 3</td>
<td>Group 1</td>
<td>Group 2</td>
</tr>
<tr>
<td>Dormitory Conversation</td>
<td>Group 2</td>
<td>Group 3</td>
<td>Group 1</td>
</tr>
</tbody>
</table>

After reading each conversational segment, the students were asked to identify the topic and the issue of the conversational segment they had just read. Because the primary question asked in this study was whether two separate entities, "topic" and "issue," exist and are used in conducting and understanding conversations, the subjects in this experiment were not given any theoretical definition of "topic" or "issue" (see Planalp and Tracy, 1980). However, they were given an example of a topic and of a issue. The students were also instructed that if
they could not identify the topic or the issue, they should write "no topic" or "no issue" respectively.

After identifying the topic and the issue, the students answered the closed-ended items. The students were asked to circle on the seven-point scale the extent to which they agreed or disagreed with the given statement about the conversational segment they had just read. Upon completing the questionnaire, the students moved on to the next conversational segment. The same procedure was repeated three times more for each segment.

**Coding**

The contents of the responses obtained in the first part of the questionnaire (topics and issues identified by the subjects and given in open-ended free format) were coded to convert into quantitative data in order to test the hypotheses 1 through 7.

**Coding scheme**

The coding scheme was designed specifically to answer the following seven questions which are in accordance with Hypothesis 1 to Hypothesis 7.

1) Do participants provide different answers as to the topic and the issue?
2) Are answers given as a topic either definite nouns or noun phrases?
3) Can participants who received a conversational segment with an implicit issue identify the issue?
4) Can participants who received a conversational segment with no issue identify it as such?
5) Do answers given as an issue take sentence form?
6) Are answers given by participants as topics involved as grammatical subjects in the answers given by them as issues?
7) Are answers given as an issue evaluative?

The first section of the coding scheme concerned the demographic aspects of the obtained data: subjects, conversational segments, and issue types. The second section consisted of four items which concerned the given answer as topic; and the third section consisted of eight items which concerned the given answer as issue (see Appendix D).

Coders and Coder Training

Coding was done by the researcher in this experiment. However, in order to test intercoder reliability, an independent second coder was assigned to code 20% of the data. Responses of every fifth subject were coded by an undergraduate student with a
communication major, who was trained by the researcher in the following procedure which took approximately two hours in total.

First, the second coder was given oral and written instructions of the coding scheme by the researcher. Then, the second coder practiced coding about ten sample responses (ten conversational segments, not ten sets) which were obtained through a pilot test; the pilot test was done independently from the experiment according to the same procedure using a similar but different group of subjects and some different conversational segments, so there was no overlapping of subjects. The second coder's coding was compared with the researcher's and disagreement was discussed. When judged by the researcher to understand the coding scheme thoroughly, the second coder started coding independently.

**Measurements and Data Analysis**

There were two types of measurements in this study. After the assessment of the reliability of these measurements (see next chapter), they were analyzed to test the hypothesis, and the statistical significance of findings were tested. The methods of analysis differed according to the types of questionnaire items.
Open-ended Items

The first type of analysis was employed for the answers to the open-ended items. As discussed earlier, these had been coded using the coding scheme in Appendix D. The coding scheme virtually asked whether some features of participants' responses were present or absent (actual codes were "yes" or "no").

For each of the coded items, a contingency table was created. The dimensions of the table were 3 (issue types) and 2 (present vs absent). Then to see if there was any relationship between the issue types and the presence of the questioned feature, in other words, if there were any differences of frequency between the issue types, the chi square test was performed. When difference was found to be statistically significant, individual chi square tests were performed to find out between which issue types a difference exists. This method and actual formula used to obtain chi square were introduced by Fleiss (1973; see pp. 92-96).

In some cases where hypotheses regarded a particular feature of a given topic or issue, the responses which did not provide a topic or an issue were eliminated from contingency tables, rather than using all responses. Also, when a hypothesis did not regard issue
types, overall frequency was used instead of the contingency table by issue types.

**Closed-ended Items**

The second type of analysis was performed on the closed-ended items. Three indices were produced from the responses of 17 items of the questionnaire which were given in the seven-point Likert scale. They were difficulty of topic identification (3 items), difficulty of issue identification (3 items) and conversational satisfaction (11 items). Indices were averages for each participants' ratings for the relevant items.

In order to find the effects of the issue types on these three indices, analysis of variance (ANOVA) were performed for each measurement. Following the advice given by Jackson and Jacobs (1983; Jackson, Brachers, and Massey, 1992), among the independent measures for three ANOVAs, conversational segments (3 levels) were treated as having random effects. Thus, the analysis included two variables: issue type (fixed effect, 3 levels) and conversational segment (random effect, 3 levels).

When an ANOVA showed overall differences to be statistically significant, post hoc tests (Scheffe's test) were performed by using the formula given in Dowdy and
Chapter 4

RESULTS

Data was collected from an introductory communication class at the University of Delaware. Of the 187 students in the class, 151 participated in the experiment. Among these participants, nine were found to have previously participated in the material selection procedure; thus those students' responses were not included in the data analysis. In addition, one student's response was found to be incomplete (one full page out of the six page questionnaire was not filled in) and was also not included in the data analysis. Therefore, the responses of 141 students were finally used for the data analysis.

Reliability Testing

Prior to the data analysis for hypotheses testing, reliability of measurements was assessed.
Intercoder Agreement on Open-ended Items

Coder reliability was assessed by Krippendorff's alpha, which tests an intercoder agreement of the coding for each item in the coding scheme. An alpha of at least .60 was set to be an acceptable agreement coefficient.

As shown in Table 4.1, alphas of only seven items, item 1, 2, 5, 6, 9, 10, and 12, out of twelve items reached the criteria value (Krippendorff's alpha ranged from .63 to 1.00). In other words, intercoder agreement of the other five items did not meet the criteria.

However, of these five items, two coders' judgments on the following three items exhibited more than 80% of agreement while having very low Krippendorff's alphas: item 4, whether or not a given topic contains a sentence (92.9% of agreement which yielded alpha .37), item 8, whether or not a given issue is a definite noun (88.1% of agreement which yielded alpha -.06), and item 11, whether or not a given topic is a grammatical subject of a given issue (86.9% of agreement which yielded alpha .49). This discrepancy between high percentages of agreement and low alphas was attributed to the fact that most of the codes fell into one category (90.5%, 88.1%, and 78.6% respectively) by both coders. Under this uneven distribution of codes, a small amount of disagreement tended to be weighted heavily. Because the distorted
distribution of codes came mostly from the nature of the items themselves, those three items' intercoder reliability was considered, with their high percentages of intercoder agreement, to be acceptable in this study.

On the contrary, the other two items with low alpha, item 3 and item 7, actually exhibited quite a high percentage of disagreement. More than 20% of disagreements were found between two coders' judgments on item 3, whether or not a given topic is a definite noun (25% of disagreement which yield Krippendorff's alpha .08) and on item 11, whether or not a given issue is a noun or a noun phrase (27.4% of disagreement which yield Krippendorff's alpha .45). With these low percentages of agreement, intercoder reliability of these two items could be considered neither sufficient nor acceptable.
Table 4.1 Agreement Coefficients (Krippendorff's Alpha) and Percentages of Agreement on Each Item of Coding Scheme.

<table>
<thead>
<tr>
<th>Items</th>
<th>Krippendorff's Alpha (Nominal)</th>
<th>% Agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Topic is identified.</td>
<td>1.00</td>
<td>100.0</td>
</tr>
<tr>
<td>2) Topic is noun or noun phrase.</td>
<td>.88</td>
<td>97.0</td>
</tr>
<tr>
<td>3) Topic is a definite noun.</td>
<td>.08</td>
<td>75.0</td>
</tr>
<tr>
<td>4) Topic contains a sentence.</td>
<td>.37</td>
<td>92.9</td>
</tr>
<tr>
<td>5) Issue is identified.</td>
<td>.95</td>
<td>98.8</td>
</tr>
<tr>
<td>6) Issue and Topic are identical.</td>
<td>1.00</td>
<td>100.0</td>
</tr>
<tr>
<td>7) Issue is a noun or a noun phrase.</td>
<td>.45</td>
<td>72.6</td>
</tr>
<tr>
<td>8) Issue is a definite noun.</td>
<td>-.06</td>
<td>88.1</td>
</tr>
<tr>
<td>9) Issue contains a sentence.</td>
<td>.90</td>
<td>95.2</td>
</tr>
<tr>
<td>10) Topic is involved in Issue.</td>
<td>.63</td>
<td>83.3</td>
</tr>
<tr>
<td>11) Topic is a grammatical subject of Issue.</td>
<td>.49</td>
<td>86.9</td>
</tr>
<tr>
<td>12) Issue is evaluational.</td>
<td>.68</td>
<td>88.1</td>
</tr>
</tbody>
</table>
However, examination of all responses in which disagreements between two coders occurred revealed that most of the disagreements in both items can be attributed to the two coders' different judgments in two particular cases. More than seventy percent of disagreements on Item 3 originated from the different classification of a particular response, "Motor Vehicle," between two coders. Similarly, many of the disagreements on Item 7 were found in the classification of a particular type of response: responses given in the form of noun clause in which a sentence was preceded by a conjunction, such as "if," "whether," and "how." Therefore, with cautious consideration these two items were included in the data analysis. Possible effects of using these items and plausible causes for these problems are explained and discussed in the next chapter in detail.

Internal Consistency of Closed-ended Measurement Scale

The reliability of three measurement scales, i.e., difficulty of topic identification, difficulty of issue identification, and conversation satisfaction, were assessed by Cronbach's alpha. All three measurements' internal consistencies were found to be sufficiently reliable.
Cronbach's alpha for the difficulty of topic identification measurement, which consists of three items, was 0.834 (N=415) and for the difficulty of issue identification measurement was 0.852 (three items, N=415). Cronbach's alpha for the conversational satisfaction measurement, which consists of 11 items, yielded 0.836 (N=415).

Summary
As reviewed, all three closed-ended measurement scales were found to be sufficiently reliable. Ten out of twelve open-ended measurements were considered either sufficiently reliable or acceptable. And two open-ended measurements were found to be unreliable.

However, with some cautious consideration, these two measurements were used in the data analysis. Thus, the results of all measurements were reviewed for hypothesis testing.

Hypothesis Testing
Among eight hypotheses, hypotheses 1, 3, and 5 were supported. Although weakly, hypothesis 8 was also supported. Among the rest, hypothesis 2 was partially supported while hypotheses 4, 6 and 7 were not supported.
Hypothesis 1

Hypothesis 1 stated that when participants are asked to identify a "topic" and an "issue" in a given conversation, they are able to provide two different types of response. This hypothesis was supported. Only one response out of the total 423 responses showed that a topic and an issue of a given conversation segment are identical. In other words, more than 99% of the time, participants provided two different types of response for a "topic" and an "issue."

Hypothesis 2

Hypothesis 2 predicted that when participants are asked to identify a "topic" in a given conversation, they will provide a definite noun or a noun phrase as the response. This hypothesis was not fully supported. While most of the given topics (389 responses out of the total of 423 responses) were categorized as either a noun or a noun phrase, only 23 of them (5.9% of those responses given as nouns and noun phrases) were definite nouns.

(Note: The intercoder reliability test showed the data for this category, i.e., whether a topic is a definite noun, is not dependable.)

Table 4.2 presents this data separately for each of the three issue types (conditions). A chi square test
found no significant difference among the conditions in the proportion of topics categorized and not categorized as a noun or a noun phrase ($\chi^2 = 1.79$, d.f. = 2, not significant).

Table 4.2 Numbers of Given Topics Which Were Either a Noun or a Noun Phrase

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun or Noun Phrase</td>
<td>133 (10)*</td>
<td>129 (8)</td>
<td>127 (5)</td>
</tr>
<tr>
<td></td>
<td>94.3%</td>
<td>91.5%</td>
<td>90.1%</td>
</tr>
<tr>
<td>Neither Noun nor Noun Phrase</td>
<td>8</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>5.7%</td>
<td>8.5%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>141</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

* numbers in brackets are the numbers of given topics which were definite nouns.

Although the hypothesis was not supported, a comparison between given topics and given issues on the numbers of responses given in noun form or as a noun phrase was conducted to contrast the characteristics of "topic" and "issue." (However, it must be noted that the judgments of two coders on whether a given issue is a noun or a noun phrase showed a high percentage of disagreement.)
Thus, Krippendorff's alpha suggests the results of this item are not sufficiently reliable.)

Table 4.3 Numbers of Noun or Noun Phrase Type Responses

<table>
<thead>
<tr>
<th></th>
<th>Topic</th>
<th>Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noun or</td>
<td>389</td>
<td>140</td>
</tr>
<tr>
<td>Noun Phrase</td>
<td>(92.0%)</td>
<td>(33.1%)</td>
</tr>
<tr>
<td>Neither Noun nor Noun Phrase</td>
<td>34</td>
<td>283</td>
</tr>
<tr>
<td></td>
<td>(8.0%)</td>
<td>(66.9%)</td>
</tr>
<tr>
<td>Total*</td>
<td>423</td>
<td>423</td>
</tr>
<tr>
<td></td>
<td>(100.0%)</td>
<td>(100.0%)</td>
</tr>
</tbody>
</table>

A higher proportion (92.0%) of noun and noun phrase type responses was found for "topic," compared to the proportion of noun and noun phrase type responses for "issue," which yielded 33.1%. A chi square test found the difference to be statistically significant ($\chi^2 = 312.80$, d.f.=1, $p<.001$). This result suggests that noun or noun phrases are more likely to occur as "topic" than "issue," as predicted.
Hypothesis 3

It is predicted by hypothesis 3 that even though an "issue" is not stated explicitly in a given conversation, as long as there is an "issue," participants can identify it. This hypothesis was supported. Table 4.4 shows the numbers of responses which gave an "issue," as opposed to responses such as "No issue" and "I couldn't find any."

Table 4.4 Numbers of Responses Which Provide an Issue

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Present</td>
<td>137</td>
<td>133</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>(97.2%)</td>
<td>(94.3%)</td>
<td>(78.0%)</td>
</tr>
<tr>
<td>Issue Absent</td>
<td>4</td>
<td>8</td>
<td>31</td>
</tr>
<tr>
<td></td>
<td>(2.8%)</td>
<td>(5.7%)</td>
<td>(22.0%)</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>141</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>(100.0%)</td>
<td>(100.0%)</td>
<td>(100.0%)</td>
</tr>
</tbody>
</table>

Regardless of whether an issue is explicit or implicit, when a conversational segment contained an issue, more than 90% of participants could provide an issue. However, this percentage drops in the no issue condition. These results were found to be statistically significant by an
overall chi square test ($\chi^2 = 32.98$, d.f. = 2, p < .001).

Individual chi square tests between two groups, which were performed in addition to the overall chi square test, revealed that significant differences exist between the explicit issue condition and the no issue condition ($\chi^2 = 23.78$, d.f. = 1, p < .005) and between the implicit issue condition and the no issue condition ($\chi^2 = 15.74$, d.f. = 1, p < .005), but not between the explicit issue condition and the implicit issue condition ($\chi^2 = 1.39$, d.f. = 1, not significant).

Hypothesis 4

Hypothesis 4 makes a conjecture that if a given conversation does not have an "issue," participants can identify the conversation as a "non-issue" one. This hypothesis was not directly supported. As shown in Table 4.4, even when a given conversational segment did not contain an issue, 78% of the participants identified something as an issue of the conversation. However, two types of data showed some tendency in the direction of the hypothesis.

First, as presented in the previous section, there was a proportional difference between two groups of conditions, i.e., one explicitly or implicitly involves an issue and one does not involves any issue. Since there
was no significant difference found between the explicit issue condition and the implicit issue condition, these two conditions were combined, and another contingency table (Table 4.5) was created to compare two conditions: issue existing condition and no issue condition.

Table 4.5 Numbers of Responses Which Provide an Issue

<table>
<thead>
<tr>
<th>Issue Condition</th>
<th>Explicit/Implicit</th>
<th>No Issue</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Present</td>
<td>270 (95.7%)</td>
<td>110 (78.0%)</td>
<td></td>
</tr>
<tr>
<td>Issue Absent</td>
<td>12 (4.3%)</td>
<td>31 (22.0%)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>282 (100.0%)</td>
<td>141 (100.0%)</td>
<td></td>
</tr>
</tbody>
</table>

When a conversation segment actually did not contain an issue (the no issue condition), a relatively higher proportion of participants (22%) indicated that they recognized a conversation as a "non-issue" one by stating "no issue," "I could not find it," "None" and so on. A chi square test between these two groups revealed that the difference is significant ($\chi^2 = 32.36$, d.f.=1, p<.001)
Second, average scores for difficulty of issue identification showed the tendency in the direction to support the hypothesis. In relation to this hypothesis, the following prediction was made: issue identification in conversational segments with no issue will be perceived to be more difficult than in conversational segments with an explicit/implicit issue, while the difficulty of topic identification will be perceived as being constant across three issue types. Table 4.6 shows the average scores of the difficulty of topic and issue identification.

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
<td><strong>Mean</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td><strong>Topic</strong></td>
<td>3.02 1.35 (N=141)</td>
<td>3.31 1.54 (N=139)</td>
<td>4.28 1.57 (N=141)</td>
</tr>
<tr>
<td><strong>Issue</strong></td>
<td>3.44 1.44 (N=141)</td>
<td>3.74 1.50 (N=140)</td>
<td>4.78 1.54 (N=140)</td>
</tr>
</tbody>
</table>

As predicted, participants responded that issue
identification is more difficult in the no issue condition (average score 4.78, SD=1.54, n=140) than in the explicit issue condition (average score 3.44, SD=1.44, n=141) or in the implicit issue condition (average score 3.74, SD=1.50, n=140).

However, contrary to the prediction, the difficulty of topic identification was also perceived to be higher in the no issue condition. As Table 4.6 shows, in the no issue condition, the average score for the difficulty of topic identification was 4.28 (SD=1.57, n=141). This score was higher than the score of both the explicit issue condition (3.02, SD=1.35, n=141) and the implicit issue condition (3.31, SD=1.54, n=139).

In order to assess statistical significance of these average differences, analysis of variance (ANOVA) was performed. As described in the previous chapter, according to the experimental design, the main effects of two factors, i.e., three issue types (conditions) and three conversational segments and an effect of their interaction were tested. Table 4.7 presents the summary of the results. Average scores of difficulty of topic and issue identification for each conversational segments and for interactions are presented in Table 4.8 and Table 4.9, respectively.
According to the ANOVAs, the difference between the issue type conditions were found to be statistically significant in both the difficulty of topic identification ($F=39.66$, d.f.$=2, 4$, p$<.005$) and the difficulty in issue identification ($F=20.89$, d.f.$=2, 4$, p$<.01$).

A post hoc test, Scheffe's test, was performed to find where the differences exist. It showed that in both topic and issue identification, differences exist between the explicit issue condition and the no issue condition (at 0.05 level) and between the implicit issue condition and the no issue condition (at 0.05 level) but not between the explicit and implicit conditions. Thus the prediction was partially supported.
Table 4.7 Summary of ANOVAs for Difficulty of Topic and Issue Identification

<table>
<thead>
<tr>
<th>Source</th>
<th>d.f.</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Topic Identification</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue Type</td>
<td>2</td>
<td>122.38</td>
<td>61.19</td>
<td>39.66 ***</td>
</tr>
<tr>
<td>Conversation</td>
<td>2</td>
<td>8.69</td>
<td>4.35</td>
<td>1.96</td>
</tr>
<tr>
<td>Issue. × Conv.</td>
<td>4</td>
<td>6.17</td>
<td>1.54</td>
<td>0.70</td>
</tr>
<tr>
<td>Error</td>
<td>412</td>
<td>913.49</td>
<td>2.22</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>420</td>
<td>1050.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Issue Identification</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue Type</td>
<td>2</td>
<td>139.72</td>
<td>69.86</td>
<td>20.89 *</td>
</tr>
<tr>
<td>Conversation</td>
<td>2</td>
<td>18.45</td>
<td>9.23</td>
<td>4.21 **</td>
</tr>
<tr>
<td>Issue. × Conv.</td>
<td>4</td>
<td>13.38</td>
<td>3.34</td>
<td>1.52</td>
</tr>
<tr>
<td>Error</td>
<td>412</td>
<td>902.00</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>420</td>
<td>1073.55</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<.01, ** p<0.05 *** p<.005

In addition to the issue type conditions, the conversational segments were found to have a statistically significant effect on average scores of the difficulty of issue identification (F=4.21, d.f.=2, 412, p<.05). Significant differences between the conversational segments were not found in the average scores of the difficulty of topic identification (F=1.96, d.f.=2, 412, not significant). Average scores of the difficulty of
topic identification and issue identification by conversational segments are presented in Table 4.8.

Table 4.8 Average Scores of Difficulty of Topic and Issue Identification by Conversational Segments. (Higher scores indicate that conversational segments were perceived as more difficult.)

<table>
<thead>
<tr>
<th></th>
<th>Teacher Conversation</th>
<th>Motor Vehicle Conversation</th>
<th>Dormitory Conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Topic</td>
<td>3.73</td>
<td>1.60</td>
<td>3.43</td>
</tr>
<tr>
<td>(N=141)</td>
<td></td>
<td></td>
<td>(N=140)</td>
</tr>
<tr>
<td>Issue</td>
<td>4.26</td>
<td>1.62</td>
<td>3.77</td>
</tr>
<tr>
<td>(N=141)</td>
<td></td>
<td></td>
<td>(N=139)</td>
</tr>
</tbody>
</table>

As no statistical significance was found, the average scores of the difficulty in topic identification were notably close to each other between conversational segments. That is, the average score of Teacher Conversation was 3.73 (SD=1.60, n=141), the average score of Motor Vehicle Conversation was 3.43 (SD=1.61, n=140), and the average score of Dormitory Conversation was 3.46 (SD=1.53, n=140).

In contrast, in the difficulty of issue identification, post hoc tests (Scheffe's) revealed that
the significant difference exists (at 0.05 level) between Teacher Conversation (average score=4.26, SD=1.62, n=141) and Motor Vehicle Conversation (average score=3.77, SD=1.65, n=139). No significant difference was found between Dormitory Conversation (average score=3.92, SD=1.49, n=141) and the other two segments.

No interactional effect of the issue types and the conversational segments was found either in the difficulty of topic identification ($F=0.70, \ d.f.=4, \ 412, \ not \ significant$) or in the difficulty of issue identification ($F=1.52, \ d.f.=4, \ 412, \ not \ significant$). Average scores of interactions (three issue types x three conversational segments) are presented in the cross sectional table (Table 4.9).

As seen in Table 4.9, although statistical significance was not found for interactional effects, the average scores of Dormitory Conversation did not follow the same pattern with the other two conversations for the difficulty of both topic identification and issue identification. While the implicit issue condition was rated more difficult to identify topic and issue than the explicit issue condition in both Teacher Conversation and Motor Vehicle Conversation, the implicit issue condition was rated either as equal to or as easier than the explicit issue condition in Dormitory Conversation.
Figures 4.1 and 4.2 illustrate this nonparallel relationship.

Table 4.9 Average Scores of Difficulty of Topic and Issue Identification by Interaction. (Higher scores indicate that conversational segments were perceived as more difficult.)

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
</tr>
<tr>
<td><strong>Teacher Conversation</strong></td>
<td>3.06 1.44 (N=47)</td>
<td>3.61 1.52 (N=48)</td>
<td>4.54 1.51 (N=46)</td>
</tr>
<tr>
<td><strong>Motor Vehicle Conversation</strong></td>
<td>2.84 1.41 (N=46)</td>
<td>3.14 1.61 (N=46)</td>
<td>4.26 1.46 (N=48)</td>
</tr>
<tr>
<td><strong>Dormitory Conversation</strong></td>
<td>3.16 1.18 (N=48)</td>
<td>3.16 1.49 (N=45)</td>
<td>4.04 1.74 (N=47)</td>
</tr>
</tbody>
</table>

**Topic identification**

**Issue identification**

<table>
<thead>
<tr>
<th></th>
<th><strong>Mean</strong></th>
<th><strong>SD</strong></th>
<th><strong>Mean</strong></th>
<th><strong>SD</strong></th>
<th><strong>Mean</strong></th>
<th><strong>SD</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher Conversation</strong></td>
<td>3.59 1.65 (N=47)</td>
<td>4.07</td>
<td>1.37</td>
<td>5.14</td>
<td>1.46</td>
<td></td>
</tr>
<tr>
<td><strong>Motor Vehicle Conversation</strong></td>
<td>3.01 1.29 (N=46)</td>
<td>3.54</td>
<td>1.68</td>
<td>4.74</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td><strong>Dormitory Conversation</strong></td>
<td>3.70 1.29 (N=48)</td>
<td>3.59</td>
<td>1.42</td>
<td>4.45</td>
<td>1.63</td>
<td></td>
</tr>
</tbody>
</table>
Figure 4.1 Interactional Relationship between Issue Types and Conversational Segments in Difficulty of Topic Identification
Figure 4.2 Interactional Relationship between Issue Types and Conversational Segments in Difficulty of Issue Identification
Hypothesis 5

The prediction made in hypothesis 5 was that when participants are asked to identify an "issue" in a given conversation, as long as there is one, either explicit or implicit, participants will provide a sentence as the response. This hypothesis was supported. Regardless of the issue types, explicit issue, implicit issue and no issue conditions, more than half of the responses, 250 (65.8%) out of the total of 380, were either a sentence or contained a sentence. Especially when a conversational segment contained an issue, the percentage of the responses which were or contained a sentence were higher than the percentage in the no issue condition. As seen in Table 4.10, the percentage of the responses containing a sentence were 65.7% in the explicit issue condition, 72.9% in the implicit condition, and 57.3% in the no issue condition.

An overall chi square test showed that there was a significant difference between these percentages ($\chi^2=6.56$, d.f.=2, $p<.05$). However, individual chi square tests performed to assess the significance of the difference between the two conditions showed that a significant difference was found only between the implicit issue condition and the no issue condition ($\chi^2=6.56$, d.f.=1,
p < .05). In other words, no significant differences were found between the explicit issue condition and the implicit issue condition ($\chi^2 = 1.66, \text{d.f.} = 1$, not significant) and between the explicit issue condition and the no issue condition ($\chi^2 = 1.84, \text{d.f.} = 1$, not significant).

Table 4.10 Numbers of Responses Given as an Issue Which Contains a Sentence.

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains Sentence</td>
<td>90 (65.7%)</td>
<td>97 (72.9%)</td>
<td>63 (57.3%)</td>
</tr>
<tr>
<td>Does not Contain</td>
<td>47 (34.3%)</td>
<td>36 (27.1%)</td>
<td>47 (42.7%)</td>
</tr>
<tr>
<td>Total</td>
<td>137 (100.0%)</td>
<td>133 (100.0%)</td>
<td>110 (100.0%)</td>
</tr>
</tbody>
</table>

* Only responses which provided an issue are included in this table; thus total numbers are less than 141.

As a comparison, the same analysis was performed on the given responses as topic. While 65% of the total responses given as an issue contained a sentence, only 10% of the responses given as a topic (41 out of the total of 409 responses) contained a sentence. Table 4.11 presents
Hypothesis 6

Hypothesis 6 predicted that the sentence provided by participants as an "issue" will have a "topic" as a grammatical subject. The results did not support this hypothesis. Only 13% of the total of 380 given issues contained a given topic as a grammatical subject, while 32% contained a given topic in some way.

However, as seen in Table 4.12, the percentages of the responses given as an issue which contains a topic as a grammatical subject were different between the issue type conditions. An overall chi square test found the differences between the conditions as statistically significant ($\chi^2=16.27$, d.f.=4, $p<.005$). In addition to the overall chi square test, three chi square tests were independently performed between two issue type conditions. These tests found overall significant differences between the explicit issue condition and the no issue condition ($\chi^2=15.43$, d.f.=2, $p<.0005$) and between the implicit issue condition and the no issue condition ($\chi^2=9.66$, d.f.=2, $p<.01$), but not between the explicit and implicit issue conditions ($\chi^2=2.73$, d.f.=2, not significant).
Table 4.12 Numbers of Responses Given as an Issue Which Contains a Topic as a Grammatical Subject.

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains Topic as Subject</td>
<td>25 (16.2%)</td>
<td>21 (15.8%)</td>
<td>4 (3.6%)</td>
</tr>
<tr>
<td>Contains Topic, not as a Subject</td>
<td>32 (23.4%)</td>
<td>22 (16.5%)</td>
<td>20 (18.2%)</td>
</tr>
<tr>
<td>Does not Contain Topic</td>
<td>80 (58.4%)</td>
<td>90 (67.7%)</td>
<td>86 (78.2%)</td>
</tr>
<tr>
<td>Total*</td>
<td>139 (100.0%)</td>
<td>133 (100.0%)</td>
<td>110 (100.0%)</td>
</tr>
</tbody>
</table>

* Only responses which provided a topic are included in this table; thus total numbers are less than 141.

While the percentages were relatively constant between the explicit issue condition (16.2%, n=139) and the implicit issue condition (15.8%, n=133), the percentage dropped in the no issue condition to 3.6% (n=110).

The percentages of the responses given as an issue which contains a topic but not as a grammatical subject were relatively constant across the issue type conditions. The percentages ranged from 16.5% (the implicit issue condition) to 23.4% (explicit issue condition). The
percentage of the no issue condition for this category, 18.2%, fell between the other two conditions.

**Hypothesis 7**

Hypothesis 7, that an "issue" provided by participants will be an evaluational statement, was not supported. In total, 119 (28.1%) out of 423 total responses were evaluational. Table 4.13 presents, separately for each issue condition, the numbers and percentage of the responses which were evaluational. As shown, even in the explicit issue condition, where an evaluational statement was literally present in a given conversational segment, just about one third of the responses were evaluational (51 out of the total of 141; 36.2%). These numbers were yet lower in the implicit issue condition (45 out of the total of 141; 31.9%) and in the no issue condition (23 out of the total of 141; 16.3%). An overall chi square test found a significant difference among those percentages ($\chi^2 = 15.35$, d.f. = 2, p < .0005).
Table 4.13 Numbers of Responses Which Gave an Evaluational Statement as an Issue.

<table>
<thead>
<tr>
<th></th>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluational</td>
<td>51 (36.2%)</td>
<td>45 (31.9%)</td>
<td>23 (16.3%)</td>
</tr>
<tr>
<td>Statement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non Evaluational</td>
<td>90 (63.8%)</td>
<td>96 (68.1%)</td>
<td>118 (83.7%)</td>
</tr>
<tr>
<td>Statement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>141 (100.0%)</td>
<td>141 (100.0%)</td>
<td>141 (100.0%)</td>
</tr>
</tbody>
</table>

However, individual chi square tests showed that there are significant differences in percentages of evaluational statements among given responses between the explicit issue condition and the no issue condition ($\chi^2=14.36$, d.f.=1, $p<.005$) and between the implicit issue condition and the no issue condition ($\chi^2=9.38$, d.f.=1, $p<.005$). But no significant difference was found between the explicit issue condition and the implicit issue condition ($\chi^2=0.57$, d.f.=1, not significant).
Hypothesis 8

This last hypothesis regards a claim that because to present an "issue" is one of the main objectives of having a conversation, a conversation with an "issue" will be favored. To test the validity of this claim, conversational satisfaction was used to measure participants' preference. Therefore, hypothesis 8 states that participants will evaluate given conversations which include an "issue" as more satisfactory than ones which do not include an "issue."

Hypothesis 8 was weakly supported. Although the result matched the prediction made in the hypothesis, it was only marginally statistically significant. Table 4.14 shows average scores of conversational satisfaction by the issue type conditions and Table 4.15 presents a summary of the ANOVA. The average scores of conversational satisfaction of the explicit issue condition (4.24, SD=0.92, n=140) and the implicit issue condition (3.97, SD=1.00, n=139) were higher than the average score of the no issue condition (3.53, SD=0.98, n=140). An ANOVA test found that differences among those average scores were marginally significant (F=6.05, d.f.=2, 4, p<.0617).
Table 4.14 Average Scores of Conversational Satisfaction by Issue Type Conditions. (Higher scores indicate that conversational segments were perceived as more satisfactory.)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explicit Issue</td>
<td>4.24</td>
<td>0.92</td>
</tr>
<tr>
<td>Implicit Issue</td>
<td>3.97</td>
<td>1.00</td>
</tr>
<tr>
<td>No Issue</td>
<td>3.53</td>
<td>0.98</td>
</tr>
</tbody>
</table>

Table 4.15 Summary of ANOVA for Conversational Satisfaction

<table>
<thead>
<tr>
<th>Source</th>
<th>d.f.</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issue Type</td>
<td>2</td>
<td>36.70</td>
<td>18.35</td>
<td>6.05</td>
</tr>
<tr>
<td>Conversation</td>
<td>2</td>
<td>10.69</td>
<td>5.34</td>
<td>5.95 *</td>
</tr>
<tr>
<td>Issue. x Conv.</td>
<td>4</td>
<td>12.13</td>
<td>3.03</td>
<td>3.38 **</td>
</tr>
<tr>
<td>Error</td>
<td>410</td>
<td>368.77</td>
<td>0.90</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>418</td>
<td>427.29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* p<.005, ** p<.01

While the hypothesized main effect was only marginally significant, there were significant differences between average scores for each of the three
conversational segments and for interactions of the issue type conditions and the conversational segments.

Average scores of the conversational satisfaction are presented in Table 4.16. As seen, among three conversational segments, Dormitory Conversation was rated as most satisfactory (average score=4.06, SD=0.92, n=140), Motor Vehicle Conversation was rated the second (average score=3.99, SD=0.94, n=140), and Teacher Conversation was rated as least satisfactory (average score=3.70, SD=1.14, n=139). An ANOVA test indicated the significant differences among those scores (F=5.95, d.f.=2, 410, p<.005). Post hoc tests (Scheffe's) found the significant difference at .05 level exists between Teacher Conversation and the other two, Motor Vehicle Conversation and Dormitory Conversation, but not between them.
Table 4.16 Average Scores of Conversational Satisfaction by Conversational Segments. (Higher scores indicate that conversational segments were perceived as more satisfactory.)

<table>
<thead>
<tr>
<th>Teacher Conversation (N=139)</th>
<th>Motor Vehicle Conversation (N=140)</th>
<th>Dormitory Conversation (N=140)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>3.70</td>
<td>3.99</td>
</tr>
<tr>
<td>SD</td>
<td>1.14</td>
<td>0.94</td>
</tr>
</tbody>
</table>

For conversational satisfaction, the interactional effect between three issue type conditions and three conversational messages was found to be significant ($F=3.38$, d.f.=4, 410, $p<.01$). Average scores of interactions (three issue types × three conversational segments) were presented in a cross sectional table, Table 4.17.
Table 4.17 Average Scores of Conversational Satisfaction by Interaction. (Higher scores indicate that conversational segments were perceived as more satisfactory.)

<table>
<thead>
<tr>
<th>Explicit Issue Condition</th>
<th>Implicit Issue Condition</th>
<th>No Issue Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td><strong>SD</strong></td>
<td><strong>Mean</strong></td>
</tr>
<tr>
<td>Teacher Conversation</td>
<td>4.27</td>
<td>1.05</td>
</tr>
<tr>
<td>Motor Vehicle Conversation</td>
<td>4.38</td>
<td>0.80</td>
</tr>
<tr>
<td>Dormitory Conversation</td>
<td>4.08</td>
<td>0.89</td>
</tr>
</tbody>
</table>

Average scores indicated, although they varied, that in all three conversational segments, the no issue condition was judged to be least satisfactory by participants. The average scores were as follows: 3.11 (SD=1.07, n=46) for Teacher Conversation, 3.57 (SD=0.87, n=48) for Motor Vehicle Conversation, and 3.90 (SD=0.85, n=46) for Dormitory Conversation.

While the no issue type condition showed the lowest average scores, regardless of the conversational segments, the twisted relation between the conversational
segments and the other two issue type conditions was found. Both Teacher Conversation and Motor Vehicle Conversation were rated by participants as most satisfactory in the explicit issue conditions: an average score of 4.27 (SD=1.05, n=47) for Teacher Conversation, and an average score of 4.38 (SD=0.80, n=45) for Motor Vehicle Conversation. The implicit issue condition was rated second for both Teacher Conversation and Motor Vehicle Conversation, with average score 3.69 (SD=1.00, n=46) and with average score 4.05 (SD=0.96, n=47) respectively. This parallel relationship was not observed for Dormitory Conversation. For Dormitory Conversation, the implicit issue condition was rated more satisfactory (average score=4.18, SD=1.01, n=46) than the explicit issue condition (average score=4.08, SD=0.89, n=48). As mentioned earlier, although no statistical significance was found among the interaction's average scores of the difficulty of topic and issue identification, there were similar twisted relationships for Dormitory Conversation (see Fig 4.1, 4.2, and 4.3). Also see Table 4.9 in the earlier section in this chapter for individual scores and SDs.
Figure 4.3 Interactional Relationship between Issue Types and Conversational Segments in Conversational Satisfaction
Summary

Among eight hypotheses, hypotheses 1, 3, and 5 were supported. Although weakly, hypothesis 8 was also supported. Among the rest, hypothesis 2 was partially supported while hypotheses 4, 6, and 7 were not supported.

However, in some cases the results indirectly supported hypotheses or showed some tendencies. More detailed discussion of those cases will be given in the next chapter. Also, overall interpretation of the results will be discussed in the next chapter.
Chapter 5

DISCUSSION

In this chapter the results of the study will be discussed in a more detailed manner in terms of their correspondence with predictions made in the first chapters. Then the process of conversation proposed in the first chapter will be reviewed based on the findings of the study. As part of discussions, examples of the actual responses from the experiment will be introduced, although the content of the responses was not analyzed quantitatively in the study. Transcriptions of those responses are faithful to the original hand-written responses regarding spelling, punctuation, and capitalization.

Discussion about the practical implications of the study and suggestions about the future research directions the study suggests will be presented in this chapter.
Review of the Results

Psychological Reality of "Issue" and "Topic"

First of all, it was confirmed that people can recognize two entities of conversation, "topic" and "issue," as separate and distinct. Although the main claim made in this thesis is that presenting an "issue" is one of the main objectives of having a conversation, what "issue" and "topic" are must be clarified before further discussion, and the psychological reality of these concepts must be confirmed.

The fact that participants could give different responses to two requests to identify the "topic" of conversation and to identify the "issue" of conversation suggests that these two entities have separate psychological realities.

Delineation of "Issue" and "Topic"

As reviewed in the second chapter, many scholars, while discussing the notion of "topic" using various terms for it, failed to make a clear distinction between "topic" and "issue." Opposing these approaches, this thesis claims that these two entities must be distinguished from
each other. This thesis, then, proposes definitions of these two concepts.

Since the results showed strong evidence for the psychological reality of both concepts, the validity of the proposed definition of these concepts can be examined next. In this thesis, "issue" is defined as one's judgment about an object proposed in a conversation, and "topic" is defined as the object that the judgment ("issue") is about. More precisely, "issue" is delineated as a sentence consisting of an evaluational statement about an object ("topic") literally containing the "topic" as its grammatical subject. "Topic" is characterized as an object of an evaluational statement ("issue") which appears in an "issue" statement as a grammatical subject in the form of a definite noun.

"Issue". According to the results, an "issue" was found either to be a sentence or at least to contain a sentence. As reported in the previous chapter, more than half of the responses given as an "issue" were sentences or at least contained a sentence.

However, a relatively large number of responses were also found to be nouns and noun phrases. In other words, many responses given as an "issue" were nouns or noun phrases and at the same time contained a sentence.
Those responses caused disagreement on whether or not a given response is a noun or a noun phrase. Twenty-three responses out of the total of 84 were coded as a noun or a noun phrase by the second coder but not by the first coder. This discrepancy might originate in the coding scheme itself.

The coding scheme was designed to distinguish between "issue" and "topic" in terms of their grammatical forms. Because it is hypothesized that while "topic" is a noun or a noun phrase, "issue" is a sentence or at least contains a sentence, the sentence form and the noun form were seen as contrasting form from each other. Therefore, formulating the coding scheme, nouns and noun phrases were considered to be such as the following:

Steve
Mary's new car
New York
lawyers
a wedding party
promotion
vacuuming a room
Mary vacuuming a room

However, the actual responses were not as simple as expected. Many of the responses for "issues" were not sentences but rather long noun clauses, which have different forms from the nouns or noun phrases listed above. The following are some examples of the actual responses given as "issue" which were coded as a noun or a
noun phrase by the second coder but not by the first coder.

how teacher's personality affects how interesting their classes & the material are.

whether or not a teacher can make a class fun or not; class depends on the teacher.

What DMV she went to

If you should do it.

Whether or not to hold the door open for strangers

With only a few exceptions, these types of responses were not found among the responses given as a "topic."

Although the hypotheses predicted different types of responses for "issue" and "topic," the coding scheme failed to capture the difference in these cases. Further analysis of the contents of the responses is necessary to more accurately identify the delineation of two entities, "issue" and "topic."

The other prediction regarding the delineation of "issue" was not supported by the results. It was predicted that an "issue" literally includes a "topic" as its grammatical subject, but the results did not show that an "issue" includes a "topic." There are two possible explanations for this discrepancy.

First, in order to achieve higher reliability in coding, the coding scheme was designed to categorize an "issue" into one which involves a "topic" only when the
exact words of the "topic" are included in the "issue."

Thus, for instance, in the following cases (from the actual responses), the "issue" was marked as not involving a "topic":

Case 1 (Teacher Conversation - Implicit)

Topic: professors
Issue: Liking a class all depends on the professor teaching it.

Case 2 (Motor Vehicle Conversation - Explicit)

Topic: Type of people you find at the Motor vehicles place
Issue: The issue is that the people found there are sleazy.

Case 3 (Dormitory Conversation - Implicit)

Topic: Getting into the dorms
Issue: It's too easy for strangers to get into the dorms.

In these cases, the coding scheme failed to capture an existing feature of the response, that is, "issue" responses actually contain "topic." Although this conservative coding scheme was aimed at achieving precision in coding and led to higher intercoder reliability, it may have sacrificed accuracy in finding "issue" responses which contain "topic."

Second, the proposed delineation of "issue" may need to be revised. Against the claim made in this thesis, an "issue" could be about the "topic" but does not have to literally include the "topic" in the statement.
Several examples of this case were seen, particularly in the responses of Dormitory Conversation:

Case 4 (Dormitory Conversation - Explicit)

Topic: Safety in Dorms
Issue: People can get in the building easily

Case 5 (Dormitory Conversation - Implicit)

Topic: Dorm Security
Issue: How anyone can walk in and out of dorms and not get checked.

Another discrepancy of the results with the proposed delineation of "issue" is that an "issue" does not have to be evaluational. As reported in the previous chapter, only one third of the responses given as an "issue" were categorized as "evaluational statement."

Again, the coding scheme used in the data analysis may be the possible reason for this discrepancy. In the data analysis, the coding instructions specify three cases in which a given "issue" can be categorized as "evaluational." These cases are: 1) a statement having an adjective in the predicate, e.g., "Lisa's hair is gorgeous," 2) a statement expressing a possibility with words such as "can" or "could," e.g., "This plan could change the whole situation," and 3) a statement expressing a value judgment with words such as "should," e.g., "You should tell him." While this specification led to high intercoder reliability, it might fail to capture the
responses which could reasonably be seen as evaluational. The following are the actual responses categorized as non-evaluational which can be considered as evaluational:

Case 6 (Teacher Conversation - Explicit)

Issue: 1 [person #1] does not like her French professor.

Case 7 (Teacher Conversation - Explicit)

Issue: teachers make or break the outcome of a class.

Case 8 (Motor Vehicle Conversation - Implicit)

Issue: Don't like going to DMV.

Case 9 (Motor Vehicle Conversation - Implicit)

Issue: The issue is that people (#1, #2) don't like unclean people.

In particular, it may be one of the deficiencies of the coding scheme that the statements considering one's liking/disliking were not categorized as evaluational.

Second, the hypothesis which claims that an "issue" is expressed as an evaluational statement in a conversation might be inaccurate in fully reflecting this thesis's proposal about the process of conversation. That is, as discussed in the first chapter, this thesis proposed that a conversant presents an "issue" in a conversation in order to evaluate the rightness of the "issue" statement. The presented "issue" is then acknowledged and either approved or disapproved through
the conversation. When the proposed "issue" is disapproved, the conversant either may modify the "issue" and keep it or may keep the original "issue" regardless of the disagreement.

During this process, at one time or another, it is possible that an "issue" takes an interrogative form rather than an assertive form (statement), while the hypothesis assumed that a conversation with an "issue" should involve a statement. Among responses, there were some which, instead of making an assertion by giving an evaluational statement as an "issue," obsequiously presenting such a statement in a clause preceded by a conjunction, such as "if," "whether," and "how." Following are some of the responses of this type:

Case 10 (Teacher Conversation - Explicit)

Issue: how teacher make classes fun or terrible

Case 11 (Teacher Conversation - Implicit)

Issue: how the teacher affect the course

Case 12 (Motor Vehicle Conversation - Implicit)

Issue: How unclean people are always hanging around the DMV

Case 13 (Dormitory Conversation - Implicit)

Issue: Whether to let people in or not

As seen above, most of the responses are not grammatically formed as questions or complete sentences; nevertheless,
their contents correspond with evaluational statements (judgments). It can be speculated that those noun clauses are either indirectly offering or requesting judgments. Thus, it is possible to conclude that an "issue" is not necessarily asserting a judgment (stating an evaluation), but it can indirectly offer or request judgment.

"Topic". This thesis claimed that the "topic" is not just a noun or a noun phrase but a definite noun, because it is the conversant's responsibility to present a "topic" to a conversational partner prior to presenting the "issue," whose main concern is the "topic." Being presented in a conversation prior to the "issue" and acknowledged by a conversation partner, the "topic" must become definite.

The results showed that the "topic" was usually judged to be either a noun or a noun phrase. But, against the prediction, "topic" was found to only rarely be a definite noun. Because the number of definite nouns among responses given as a "topic" is so low, one may draw conclusion that the hypothesis was incorrectly made. However, this may not be the case.

As introduced in the second chapter of this thesis, Li and Thompson (1976), who made a claim that a "topic" must be definite, defined definite nouns as
specified nouns usually indicated by the definite article "the," proper nouns, and generic nouns, e.g., "tigers" in the sentence "Tigers are dangerous animals." However, the coding scheme used in this study considered only the first two types of nouns, nouns specified by the definite article and proper nouns, to be categorized as definite nouns. By omitting the third type of definite noun, most of the responses were categorized as non-definite nouns. For instance, most of the responses given as a "topic" of Teacher Conversations were "teachers" and "professors," and even though many of them were used as generic nouns, they were considered non-generic.

Also, classification of a particular case of response, "motor vehicle," was problematic. This response which signifies the proper noun, "Department of Motor Vehicle," was not categorized as a definite noun in the process of coding.

Classification of this particular response, "Department of Motor Vehicles," not only caused a low percentage of responses categorized as definite nouns but also yielded a high percentage of intercoder disagreement between the two coders. As shown in the previous chapter (Table 4.1), the two coders agreed only 75% of the time. However, most of the disagreement originated in one source, i.e., the judgment on how to categorize the
response, "Motor Vehicle." Whereas the first coder categorized the responses, such as "DMV," "Motor Vehicle," "motor vehicles," and "Dept of Motor Vehicles," as non-definite nouns unless they were preceded by the definite article "the," the second coder categorized all of them as definite nouns. This particular type of disagreement was counted 15 times out of the 21 total disagreement cases. If this particular disagreement is resolved, the total percentage of agreement rises from 75.0% to 92.9%.

Thus, the problem may not be in the hypothesis but in the definition of definite nouns in the coding scheme. Re-coding of the responses with a revised definition of definite nouns might lead to different result for this hypothesis.

However, even if this disagreement is resolved, and as a result, the number of nouns considered to be definite increases dramatically, this increased number still may not be used as evidence that "topic" is a definite noun because it is specified through a conversation. Being a proper noun, "Department of Motor Vehicles" should be considered a definite noun even when it is mentioned for the first time in a conversation. The Motor Vehicle Conversation was indeed about "the Division of Motor Vehicles," and all participants received the Motor Vehicle Conversation as one of the three
conversational segments. Therefore, in principle, one-third of all responses could have been automatically definite nouns, "the Division of Motor Vehicles." In this circumstance, it may not be proper to make a generalized conclusion about the delineation of "topic," i.e., a "topic" is a definite noun.

Although it is also inappropriate to avoid all proper noun "topics" when selecting conversational segments, future research should include conversational segments in which an unspecified noun is brought into, and then becomes a "topic" of, conversation, in order to examine if a "topic" becomes a definite noun by being specified through a conversation.

Objective of Having a Conversation

It is claimed in this thesis that one of the main objectives of having a conversation is to evaluate the rightness of one's judgment about things ("issue"). In order to achieve this objective, one has to present the "issue" through a conversation. The presentation of an "issue" can be done in an explicit way or in an implicit way. In either case, a conversation in which an "issue" is presented has to be perceived to be accomplishing one of the very objectives of having a conversation.
This claim leads to the conjecture that a conversation in which an "issue" is presented will be favored by conversants (or observers). In particular, two predictions were made. First, a conversant (or an observer of a conversation) can distinguish a conversation with an "issue," regardless of whether it is presented explicitly or implicitly, from one without an "issue." This prediction was tested by examining whether research participants identified an "issue" when explicit, implicit, or not present in a conversational segment and by comparing the perceived difficulty in "issue" identification among these three conditions. Second, an observer will favor a conversation with an "issue," regardless of whether it is presented explicitly or implicitly, over one without an "issue." This preference was measured by the participants' satisfaction with the conversation.

The results, as reviewed in the previous chapter, partially supported the first prediction and fully supported the second prediction. As the first prediction stated, observers of a conversation could identify the "issue" regardless of whether it is explicitly or implicitly presented in the given conversation. The identification of an explicit "issue" and an implicit "issue" were perceived as almost equally easy, compared to
the identification of an "issue" which does not actually exist in a conversation.

While the above results supported the hypothesis, the same data showed unexpected phenomena. These phenomena are reviewed and discussed before the discussion of the second prediction.

The first unexpected phenomenon found through testing the hypothesis was that more than half of the participants could identify something as an "issue" when they were given conversational segments which actually do not include any "issue." The fact that participants reported the greater difficulty identifying an "issue" in this condition suggests that the participants recognized the conversational segments without an "issue" as different from two other types. Yet participants tried to find an "issue" and many of them indeed identified something as an "issue."

Although it seems, on the surface, to contradict the hypothesis, this unexpected result shows participants' strong tendency to seek an "issue" in a given conversation. Because presenting an "issue" is one of the objectives of having a conversation, conversants (or observers of conversation) expect to find an "issue." Thus, one possible explanation for this result is that because this expectation is so high, conversants
(observers) keep looking for an "issue" even when there is none.

This result raises another question of what was identified as an "issue" of a conversation in the no issue condition. There were basically three types of responses seen in the no issue condition, although the contents of the responses were not analyzed quantitatively in the data analysis procedure in this study. The three types are: 1) responses which explicitly stated "no issue," 2) responses which were evaluational statements or the like, such as in the other two conditions, and 3) responses which were fact oriented. The third type of response includes the following:

Teacher Conversation

Asking each other who they had?

Who were the teachers and when they took each Comm. course

Motor Vehicle Conversation

Taking a trip to DMV

Getting new licenses from the DMV

Dormitory Conversation

That students let those in even w/out PDI's - regardless of who it is

People asking to see I.D. to get into the Towers.

However, to draw any conclusion about the type of response given as an "issue" when a conversation does not include
any "issue," more comprehensive analysis on the contents of the responses is necessary.

Another unexpected phenomenon found was that the perceived difficulty of "topic" identification varied from issue type to issue type. Because the difficulty of topic identification was thought to be constant along issue types, this result was unexpected. Specifically, the results showed that participants found identifying a "topic" of a conversation which does not involve an "issue" more difficult than identifying one in a conversation which involves an explicit issue.

One of the possible reasons of this unexpected result is problems caused by the manipulation of conversational content by the researcher. Although the "topic" of conversation should be constant among the three issue type versions after the researcher's modification, it appears to have been altered in some conversations. For instance, for the Teacher Conversation, while most of the participants responded that either "teachers" or "professors" are the "topic" of conversation in the explicit and the implicit issue condition, many responded in the no issue condition that the "topic" of the conversation is "classes" or "courses." Similar alteration was found in Motor Vehicle Conversation, from either "Motor Vehicle" or "people at Motor Vehicle" to
"drivers license." In those cases, it is speculated that the manipulation led to topic changes within the no issue conversational segment, thus making topic identification more difficult.

While showing these unexpected phenomena, the results supported the second prediction. The second prediction stated that an observer will favor a conversation with an "issue," regardless of whether it is presented explicitly or implicitly, over one without an "issue." The results showed participants' preference for the conversations with an "issue," which was measured by the participants' satisfaction with the conversation.

The participants reported higher conversational satisfaction for the conversations with an "issue," regardless of whether it is explicitly or implicitly presented. Because other factors which possibly contribute to conversational satisfaction were controlled by equalizing them among material conversations and/or by using multiple conversational segments, the difference in conversational satisfaction can be attributed to the presence or absence of an "issue" in a conversation.

However, while this result satisfies the necessary condition to support the main claim of this thesis, that presenting an "issue" is one of the very objectives of
having a conversation, it is not sufficient to conclude that the claim is thoroughly valid.

While examining these original predictions regarding the participants' preference for conversations with an "issue," slight differences were found between the explicit issue condition and the implicit issue condition. In most of the cases, identification of the "topic" and "issue" for the implicit issue condition was perceived to be more difficult and the conversations for the implicit issue condition were perceived to be less satisfactory than in the explicit issue condition. Although these differences were not statistically significant, they need to be explained because no difference was originally proposed between explicit and implicit issue conditions. The use of transcripts in this study instead of audio and video tapes is one of the possible answers.

In this study, transcripts of conversations were used, based on the finding of Planalp and Tracy (1980) that participants' identification of topic changes was not affected by the form of the message, i.e., tape recording or transcript. However, absence of non-verbal cues may have an effect on the implicit issue conditions, for the use of non-verbal cues, such as tone of voice, facial expressions, and gestures, is one of the ways to present an "issue" indirectly. The absence of non-verbal cues in
transcripts may make issues in the implicit issue condition more difficult to identify, thus leading the segment itself to be judged as less satisfactory than the original actual conversation would have been.

Although none of the differences between the explicit issue condition and the implicit issue condition was found to be statistically significant, the use of only transcripts might have been problematic, especially after making a claim that one of the indirect ways of presenting an "issue" is to use non-verbal cues, such as tone of voice, facial expressions, and gestures.

In addition to the results, differences were found in conversational satisfaction attributed to the conversational segments and the interaction between issue types and conversational segments.

Differences among conversational segments were unexpectedly found in both the difficulty of issue identification and in conversational satisfaction. The Teacher Conversation was perceived as the most difficult and least satisfactory among the three conversational segments.

Even though these results were unexpected in terms of hypothesis testing, they were anticipated. The unique effect of conversational segments was one of the factors which the researcher tried to eliminate through the
material selection procedure. Because researchers have reported that the identification of "topic" and "issue" and the perception of conversational satisfaction are affected by the difficulty of conversation (Tracy, 1983; Hecht, Sereno, & Spitzberg, 1984), an attempt to equalize the difficulty of conversational segments was made in the material selection procedure. As described in Chapter Three, a group of students was asked to evaluate the difficulty of nine conversational segments. The three conversational segments used in the study were selected from the nine based on the results of this procedure. Unfortunately, however, the results of the main study suggests that this attempt was not successful. In other words, the use of other conversational segments is necessary in future studies.

Not only was there an unexpected effect of the conversational messages (segments), but an interactional effect between the three issue type conditions and three conversational messages was unexpectedly found. As reported in the previous chapter, the source of this unexpected interactional effect is the Dormitory Conversation, which showed a different pattern from the other two conversations. That is, while the explicit issue condition was perceived as less difficult in identifying "topic" and "issue" and more satisfactory than
the implicit issue condition in the Teacher and Motor Vehicle Conversations, the relationship between the explicit issue condition and the implicit issue condition was basically reversed in the Dormitory Conversation.

In their original versions, the Dormitory Conversation had an implicit issue, while the other two conversations had explicit issues. Therefore, the explicit "issue" of the Dormitory Conversation was identified by the researcher from the original and was inserted into the explicit issue version. This researcher-identified "issue" could have been the problem. In other words, it is questionable if the "issue" identified by the researcher was the "issue" implied through the original conversation.

In fact, while the researcher inserted an issue statement, "Dorms are not that safe," none of the responses given by participants as the "issue" of the implicit issue version exactly resemble this inserted issue. Thus, there may have been conflict between two issues in the explicit issue condition, one implied and one stated. If this segment is used in future study, the explicit version's "issue" should be changed to reflect the "issue" identified by the participants from the implicit issue version, such as "anyone can enter the dorm so easily."
Review of the Proposed Process of Conversation

As an answer to the question of why people have conversation, this thesis claimed two main objectives of communication. One is to acquire information about things (e.g., objects, persons, places, events, plans and abstract ideas) and the other is to evaluate the rightness of one's own judgments about things.

Focusing particularly on the second objective, this thesis proposed a process of conversation through which evaluation of the rightness of one's judgment about things is performed. However, the primary goal of this study was not to examine the accuracy of the proposed process of conversation. Rather it was aimed at confirming the validity of the underlying assumption concerning the second objective and at clarifying the concepts of "topic" and "issue" used in the proposal. Consequently, not every stage of the proposed process was contemplated in this study. However, this section reviews the whole proposed process with suggestions regarding further studies.

Before moving to the review of each stage in the proposed process, it has to be reported once more that the psychological reality of "topic" and "issue," which are the only two concepts appearing in the proposed process of
conversation, was confirmed. Some of their characteristics were then identified in this study. Also, the results of the study exhibited support for the underlying assumption of the proposal, that one of the objectives of having a conversation is to present an "issue" in it.

However, there are relevant findings to each stage of the proposed process. In the first stage, a conversant introduces a "topic" into a conversation. Then a conversational partner acknowledges the presented "topic." At this point, the introduced "topic" becomes the "topic" of the conversation and the conversant can introduce an "issue," an evaluational statement about the "topic."

In the second stage, the conversant introduces an "issue" into the conversation. Then the conversational partner acknowledges the presented "issue." As with "topic" in the first stage, an introduced "issue" cannot be the "issue" of a conversation unless it is acknowledged by a partner.

The results of this study were compatible with these proposed processes. The fact that participants of the study could provide a "topic" and an "issue" of given conversations indicates that a "topic" and an "issue" were presented in a conversation. Because participants, as observers of a conversation, could acknowledge the "topic"
and "issue" as the "topic" and "issue" of the conversation, it can be assumed that the actual conversants of the original conversation could acknowledge the "topic" and the "issue" of the conversation at the time the conversation took place.

However, the questions about how and when conversants know that a "topic" and an "issue" are introduced and acknowledged still remain unanswered. To answer these questions, two types of studies are possible. The analyses of actual conversations, such as those conducted by the scholars who study conversations from a sociological viewpoint (e.g., Sacks, Schegloff, & Jefferson, 1974; Schegloff & Sacks, 1973; Maynard & Zimmerman, 1984) is one possible method. In these studies, written transcripts of conversations were analyzed, and judgments on how and when "topic" is introduced in the conversations were made by the researchers themselves. The other method is the use of judgments made by either observers of conversations, as in this study, or conversants themselves. Since observers of a conversation were capable of identifying a "topic" and an "issue" of the given conversation, it is possible to question them how and when, i.e., at which point of the conversation, they could identify these two entities.
It is proposed that in the next stage of the process the acknowledged "issue" is either approved or disapproved. It is also speculated that when the "issue" is disapproved, a conversant can do one of two things: keep the original "issue" regardless of the partner's disagreement, or modify the original "issue" by either compromising with the partner or by fully accepting the partner's view.

The questions regarding this stage of the proposed process were not addressed in this study. Moreover, the design of the study did not appropriately reflect this proposed aspect of conversational process. That is, although the proposal claims that an "issue" can be approved or disapproved, all presented "issues" received brief approval from the other conversant in the short conversational segments used in the study.

It was necessary to select similar types of conversational segments in terms of outcome because the design of the study required the manipulation of the multiple conversational segments as materials and for the purpose of experimental control. However, in future studies, conversational segments with various outcomes must be included in the materials. To have conversational segments with various outcomes is particularly important because this thesis also claimed that conversational
satisfaction can be fulfilled regardless of the outcome of the conversation.

In relation to the point discussed above, it must be noted that the effects of other factors which could possibly influence conversational satisfaction were not addressed in this study. Rather, in order to segregate conversational satisfaction derived only from the presence of an "issue" in a conversation, the researcher tried to control those factors, such as the relationship between conversants and the importance of an "issue," as well as the outcome of the conversation. Future studies should examine the effect of these additional factors on conversational satisfaction. For instance, the same procedure used in this study can be applied to different conversations to examine whether or not perceived conversational satisfaction will be affected by these factors, by manipulating and employing these factors in experimental design as independent valuables.

In the last stage of the proposed process, when either an "issue" is confirmed (approved) or any disagreement on "issue" is resolved, the conversant closes that "issue" and moves on to the next one. This stage was not covered by this study. Again, making the study design meet the primary goal of this study, each conversational segment included only one "topic" and "issue." In order
to address the questions of how and when one "issue" is closed and a second opened, and how and when conversants recognize "issue" openings and closings, similar types of study as those suggested for the study of the first two stages may be used. These include the analysis of actual conversations and studies similar to the present one, based on the judgments made by conversants or observers of a conversation.

**Practical Implications**

There are two practical implications suggested by the results of this study. The finding that a conversation with an explicit or an implicit "issue" was perceived as more satisfactory than one without an "issue" suggests that having an "issue" is one of the factors which make a conversation satisfactory. Thus, in turn, the presence of an "issue" (or its absence) can be used as one of the indices of conversational satisfaction.

Also, because a conversation which involves an "issue" is judged to be a better conversation than one which does not involve an "issue," the presence or absence of an "issue" can be used by a conversant (or an observer) as a criterion to evaluate a conversation. Furthermore, if one who engages such a conversation can be considered a better conversant (communicator), the presence or absence
of an "issue" in a conversation can be used as one of the criteria of evaluating a conversant (communicator).

Another implication stemming from this study is that conversants or observers of conversation can make inferences about the "issue" of a conversation. The inferential nature of communication is reported in several places and seen as one of the basic assumptions of communication study (Haslett, 1987). The results of this study gives strong evidence for this claim.

Three findings of this study suggest the existence of the ability to make inferences about conversation (communication). First, participants could identify the "issue" which was implied but not explicitly stated in conversational segments. For instance, the following are some examples of identified "issues" from the implicit issue versions of three conversations, in order to show the accurate match with explicit issues. (Explicit issues stated in the explicit issue version will be presented in brackets.)

Teacher Conversation

(Teachers can make or break courses.)

Teachers can make a class enjoyable or hell.

a course can be made fun or terrible

How teachers can make a class fun or difficult
Motor Vehicle Conversation

(People hanging in the Motor Vehicle are sleazy.)

the people that are at the DMV are not satisfactory to 1 [person 1] or 2 [person 2]

the people who hang out at motor vehicles are scum.

Dormitory Conversation

(Dormitory are not that safe.)

That there isn't enough security and anyone can get into the dorms.

It's crazy how easily anyone could (very easily) get into dorms. The security system really isn't good enough.

Second, the results of the study showed that one can equally easily identify an "issue" regardless of whether it is explicitly or implicitly stated in a conversation. Third, it was also found that one can be satisfied equally by a conversation where an "issue" is explicitly stated and by a conversation where an "issue" is implied. All these findings clearly indicate that people can and do make inferences about what is communicated.

Future Directions of Study

Since several suggestions about future studies have already been discussed in this chapter, only a brief
summary of them will be presented in this section. Basically, three different directions of future studies are suggested here.

First, although some characteristics of "topic" and "issue" as fundamental entities of conversation were illustrated by this study, further analysis on the delineation of "topic" and "issue" is necessary. One of the possible methods is a systematic content analysis of the free format responses given as "topic" and "issue." Content analyses may regard either grammatical properties of these entities or contents of conversation in terms of how accurately conversants and/or observers identify the "topic" and "issue" presented in conversation.

The second direction is to focus on the process of conversation proposed in this thesis. As discussed earlier, the present study did not address the questions regarding the proposed process of conversation. In order to examine the validity of the proposed process, two types of studies are suggested. One is the use of conversation analysis of actual conversations and the other is the use of experimental methods to obtain judgments about the process of conversation from either participants or observers of a conversation.

The third direction is to shift the focus of study to more applied areas. This study found that under some
conditions in which other factors remain constant, the presence or the absence of an "issue" determines the degree of conversational satisfaction. Based on this finding, future studies can compare the effect of other factors, such as the relationship between conversants, the importance of the "topic" and "issue," the difficulty of "issue," and the outcome of a conversation.

Finally, it must be emphasized that having clear distinctive definitions of "topic" and "issue" is important in pursuing any of these directions because of the importance of "topic" and "issue" as the fundamental entities of conversation.

Conclusion

The study found the existence of two entities which comprise a conversation, "issue" and "topic." While a "topic" is a noun or a noun phrase, an "issue" is a sentence or at least contains a sentence which is about a "topic." In some cases, an "issue" literally includes a "topic" in it as a grammatical subject or as another component of a sentence.

Although various types of responses were given as "issues," particular types of issues were identified among participants' responses. Among them, some "issues" expressed evaluations about things by having either an
between two conversants, importance of an "issue" and "topic," and outcome of a conversation.

This thesis attributes this satisfaction to the claim that one of the main objectives of having a conversation is to present an "issue" in order to evaluate its rightness through conversation. However, in order to make a conclusion about the validity of this claim, further studies are still to come.
REFERENCES


APPENDIX A
PRETEST QUESTIONNAIRE

1) This conversation is difficult to understand.

2) This conversation sounds natural.

3) This conversation is likely to happen in our daily life.

4) This conversation is easy to understand.

5) This conversation is realistic.
Teacher Conversation (Explicit Issue Version)

1: That course I'm just like, once I get done with it -- I mean I like French, and I want to go to France eventually, but I just -- Uh -- don't like the teacher. She -- she gives new meaning to the word bitch.

2: Teachers can make or break courses, that's for sure. They can take fun courses and make them terrible. They can take bad courses and make them fun.

1: Yeah, yeah, I agree. They can -- they can take a content of something that's really simple and make it totally ambiguous, or they can take something that's totally ambiguous and make it just, "Wow, never thought of it." You know, it like, goes both ways.

2: Yeah, It's like teach, um, there's a different art to teaching everyone, I guess.

1: Yeah, well, I could -- I can think of a professor who, in fact it was a Psych professor --

2: Uh-huh.
Teacher Conversation (Implicit Issue Version)

1: That course I'm just like, once I get done with it -- I mean I like French, and I want to go to France eventually, but I just -- Uh -- don't like the teacher. She -- she gives new meaning to the word bitch.

2: I know those teachers. They take fun courses and make them terrible.

1: That's right. Although there are teachers who do it the other way around.

2: They take bad courses and make them fun.

1: Yeah, yeah, I agree. They -- they take a content of something that's really simple and make it totally ambiguous, or they take something that's totally ambiguous and make it just, "Wow, never thought of it." You know, it like, goes both ways.

2: Yeah, It's like teach, um, there's a different art to teaching everyone, I guess.

1: Yeah, well, I could -- I can think of a professor who, in fact it was a Psych professor --

2: Uh-huh.
Teacher Conversation (No Issue Version)

1: That course I'm just like, once I get done with it -- I mean I like French, and I want to go to France eventually, but I just -- Uh -- don't like the teacher. She -- she gives new meaning to the word bitch.

2: That's bad. I'm taking Spanish, so I don't think I know her. Who did you have in Comm classes?

1: Well, I took 301 over spring.

2: Yeah, you were in my 301 class.

1: Right, right. Then, I took, uh, 350 -- is that Public Speaking?

2: Yeah. How'd you -- who'd you have for 350? Public Speaking.

1: I had a girl, who is, I believe, a grad student at the time...

2: Uh-huh.
Motor Vehicle Conversation (Explicit Issue Version)

1: At least I don't have to go to motor vehicles, now.
2: I just went and got a new license.
1: Did you?
2: Yeah, they -- I don't know what it is about motor vehicles, but they always have, like, the scariest people hanging in that place. Did you ever notice that?
1: Uh-huh.
2: There's like the sleaziest people, I mean, don't clean people have to get licenses?
1: That's true of the one by me too -- It's always like that.
2: It's always like that. I hate going up there.

Motor Vehicle Conversation (Implicit Issue Version)

1: At least I don't have to go to motor vehicles, now.
2: I just went and got a new license.
1: Did you?
2: Yeah, they -- I don't know what it is about motor vehicles, I don't know, it's not nice to say, but the people hanging in that place are -- you know.
1: Yeah, yeah.
2: I mean, don't clean people have to get licenses?
1: That's true of the one by me too -- It's always like that.
2: It's always like that. I hate going up there.
Motor Vehicle Conversation (No Issue Version)

1: At least I don't have to go to motor vehicles, now.

2: I just went and got a new license.

1: Did you?

2: Yeah, they -- I don't know what it is about motor vehicles, I don't know, it's not nice to say, but the people hanging in that place are -- you know.

1: Did you go to Wilmington or New Castle?

2: New Castle. I've never been in the Wilmington one. I've got a funny face on my licence, like, they took the picture, like, at the worst moment.

1: That's true of the one by me too -- They always do that.
Dormitory Conversation (Explicit Issue Version)

1: I never really thought about it, but ....

2: I know, me neither and you think like it's safe and...

1: Yeah, but dorms are not that safe, if you look at...

2: Like, it's so easy to get into the buildings. I mean, I figure, how many people I've held the door open for, you know, like, when you're walking in from -- it's not like you're like, "Excuse me,...

1/2: ..can I see your ID?"

2: I know.

1: I mean, sure they look creepy looking, but what's to say, you know, creepy looking so therefore, you know?

2: 'Cause a lot of times like, even if I have to go to the Towers to visit somebody or something, I just never even call 'cause if you stand there...

1: Yeah, somebody'll let you in.
Dormitory Conversation (Implicit Issue Version)

1: I never really thought about it, but...

2: I know, me neither and you think like, it's, like, anyone can get into the dorms. I mean, I figure, how many people I've held the door open for, you know, like, when you're walking in from -- it's not like you're like, "Excuse me,...

1/2: ..can I see your ID?"

2: I know.

1: I mean, sure they look creepy looking, but what's to say, you know, creepy looking so therefore, you know?

2: 'Cause a lot of times like, even if I have to go to the Towers to visit somebody or something, I just never even call 'cause if you stand there...

1: Yeah, somebody'll let you in.

Dormitory Conversation (No Issue Version)

1: I never really thought about it, but...

2: I figure, how many people I've held the door open for, you know, like, when you're walking in from -- it's not like you're like, "Excuse me,...

1/2: ..can I see your ID?"

2: Uh-huh.

1: Yeah, I keep letting people in -- into my building, like, all the time.

2: Right, like the Towers, 'cause a lot of times like, I have to go there to visit somebody or something, I just never even call 'cause if you stand there...

1: Yeah, somebody'll let you in.
The purpose of this study is to investigate your reactions to conversational segments. You will read three short transcripts of conversations and be asked to fill in a questionnaire about them.

I will answer any inquiries you may have concerning this study. The results of the study will contribute to our scientific knowledge, but will probably have no direct benefits or risks to you as a participant. The questions should take about an hour to answer.

All responses will be anonymous. While I must ask you to sign this sheet, do not enter your name or social security number on the answer sheet. In all probability the responses will be used in publications and research reports presenting statistical data, but all personally identifying material will be removed. You are free to discontinue participation at any time prior to the completion of the questionnaire.

Junko Mori
Graduate Student
Communication Department

I have read the above and give my consent to participate in this study.

Name __________________________ Date __________________________
The purpose of this questionnaire is to investigate your reactions to conversational segments. You are going to read three short transcripts of conversations between two university undergraduate students. All of the conversations were originally 30 min. long, therefore what you are going to read is only a small segment of them. All three conversations involved different pairs of students. Therefore, the conversational segments are not related to each other.

After you read each conversation, you are going to be asked what the topic and the issue of the conversational segment are. Please write what the topic of the conversation is and what the issue of the conversation is. For instance:

1: What do you think?
2: What about?
1: Oh, about Helen. You know, she didn’t send me a Christmas card or anything.
2: Really? But it’s not too surprising to me.
1: I know. And Yesterday too. She ignored me at the party.
2: Oh, dear. That’s exactly Helen.

For example, one might respond that the topic and issue are as follows:

**Topic**  Helen

**Issue**  Helen is a mean person.

However, there is no right or wrong answer, so please write down what you think the topic and the issue are from what you read. If you can not find any topic or issue, please write down "no topic" or "no issue" respectively.
Then, you are going to see several statements about the conversation. Please indicate the extent to which you agree or disagree with each statement. The 4 or middle position on the scale represents "undecided" or "neutral," then, moving out from the center, "slight" agreement or disagreement, then "moderate," then "strong" agreement or disagreement.

For example, if you moderately agree with the following statement you would circle 2:

I had a similar conversation before.


If you slightly disagree with the following statement you would circle 5:

It is difficult for me to talk with a stranger.

1: That course I'm just like, once I get done with it -- I mean I like French, and I want to go to France eventually, but I just -- Uh -- don't like the teacher. She -- she gives new meaning to the word bitch.

2: Teachers can make or break courses, that's for sure. They can take fun courses and make them terrible. They can take bad courses and make them fun.

1: Yeah, yeah, I agree. They can -- they can take a content of something that's really simple and make it totally ambiguous, or they can take something that's totally ambiguous and make it just, "Wow, never thought of it." You know, it like, goes both ways.

2: Yeah, it's like teach, um, there's a different art to teaching everyone, I guess.

1: Yeah, well, I could -- I can think of a professor who, in fact it was a Psych professor --

2: Uh-huh.

What is the topic, if you can find any, of this conversation?

What is the issue, if you can find any, of this conversation?
This conversation is satisfactory.


The topic of the conversation is clear.


Both conversants got to say what they wanted.


It is easy to understand what the conversants wanted to say.


The conversants frequently said things which added little to the conversation.


The conversants enjoyed the conversation.


It is difficult to find what the issue of the conversation is.


The conversants showed that each understood what the other said.


Nothing was accomplished in this conversation.

It is easy to identify what this conversation is about.


I would like to have a conversation like this one.


Neither of the conversants provided support for what he/she was saying.


It is difficult to find what the topic of the conversation is.


The conversants are satisfied by the conversation.


The conversants each expressed a lot of interest in what the other had to say.


The issue of the conversation is clear.


The conversation flowed smoothly.

APPENDIX D
CODING SCHEME

Section I

1. Coder Number
2. Subject Number
3. Conversational Segment
   1 Teacher Conversation
   2 Motor Vehicle Conversation
   3 Dormitory Conversation
4. Issue type
   1 Explicit Issue
   2 Implicit Issue
   3 No Issue

Section II (Topic: Regarding the answers to the question "What is the topic, if you can find any, of this conversation?")

5. Was a topic found?
   1 Yes
   0 No

6. Is the answer given as the topic a noun or a noun phrase?
   1 Yes
   0 No

7. Is the answer given as the topic a definite noun (including proper names)?
   1 Yes
   0 No

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8. Does the answer given as the topic contain a sentence or sentences?
   1  Yes
   0  No

Section III (Issue: Regarding the answers to the question "What is the issue, if you can find any, of this conversation?")

9. Was an issue found?
   1  Yes
   0  No

10. Is the answer given as the issue identical to the answer given as the topic?
    1  Yes
    0  No

11. Is the answer given as the issue a noun or a noun phrase?
    1  Yes
    0  No

12. Is the answer given as the issue a definite noun (including proper names)?
    1  Yes
    0  No

13. Does the answer given as the issue contain a sentence or sentences?
    1  Yes
    0  No

14. Does the answer given as the issue contain the given topic?
    1  Yes
    0  No

15. Does the answer given as the issue contain the given topic as a grammatical subject of the sentence or phrase?
    1  Yes
    0  No

16. Is the given issue evaluative?
    1  Yes
    0  No